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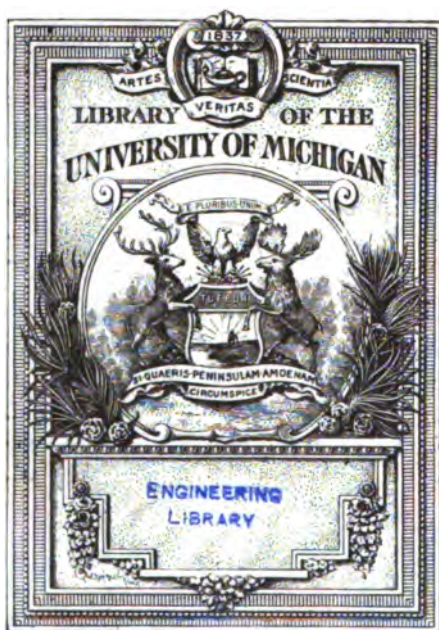
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TWENTY-SEVENTH ANNUAL REPORT
OF
THE BOARD
OF
GAS AND ELECTRIC LIGHT
COMMISSIONERS
OF
The Commonwealth of Massachusetts.

FOR THE CALENDAR YEAR 1911, INCLUDING TABLES FROM THE
ANNUAL RETURNS FOR THE YEAR ENDING
JUNE 30, 1911.



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The Commonwealth of Massachusetts.

The Board of Gas and Electric Light Commissioners respectfully submits its twenty-seventh annual report.

Returns for the year ending June 30, 1911, have been made to the Board by sixty-nine incorporated gas companies, fifty-seven incorporated electric light companies and twenty-two persons, associations or manufacturing corporations engaged in making or selling gas or electricity for light or heat. Of the gas companies making returns, twenty-seven had supplied gas and electricity at some time during the year, but only twenty-two were supplying both on June 30, 1911. Of the persons, associations or manufacturing corporations mentioned above, nine were engaged in supplying gas only, and thirteen in supplying electricity only. Two gas companies made returns, but did no business during the year. Of the companies making returns, four electric light companies ceased to be active companies during the year.

Returns for the same period have been made to the Board by the proper officials of three cities and twenty-seven towns, owning municipal lighting plants. Of the municipal plants in question, four supply both gas and electricity, and the others electricity only.

The following table gives the names of companies chartered under the provisions of chapter 110 of the Revised Laws during the year 1911, with gas or electric lighting powers, with the location, the amount of capital of each and date of incorporation, as stated in their charters: —

Barnstable Electric Company, Barnstable,	\$25,000	Nov. 10
Charlemont Electric Light and Power Company, Charlemont,	5,000	Mar. 9
Hyannis Gas Company, Barnstable,	9,000	Sept. 1
Marshfield Electric Light and Power Company, Marshfield,	15,000	May 15
Princeton Electric Company, Princeton,	5,000	July 20
Seekonk Electric Company, Seekonk,	25,000	Nov. 3
West Boston Gas Company, Boston,	300,000	Dec. 14

Of these companies, the Charlemont Electric Light and Power Company, Hyannis Gas Company and Seekonk Electric Company have applied to this Board for the approval of an issue of stock.

The Charlemont Electric Light and Power Company was organized for the purpose of "engaging in the manufacture of electricity for light, heat and power, to maintain poles, lines, wires and all necessary fixtures for the transmission and sale of electricity for light, heat and power; to purchase lands and water power rights for the purpose of generating electricity, and to acquire all property rights and franchises that may be lawfully acquired for the purpose of manufacturing, distributing and selling electricity for light, heat, power and other purposes."

The Marshfield Electric Light and Power Company was organized for the purpose of "producing and supplying electricity for all purposes; furnishing light, heat or power by means of electricity to all users thereof, whether public or private, providing means for the transmission of electricity and appliances for the use thereof for all purposes; buying, selling, leasing, and dealing in all kinds of electrical appliances and apparatus and all fixtures and equipment used in connection therewith, and installing, repairing and keeping in order all kinds of electrical fixtures, apparatus and plants; acquiring such public franchises as may be useful or necessary in connection with the above; applying for, acquiring and owning patent rights, and all rights thereunder, having to do with electrical apparatus, or which may be useful in connection therewith; and, in general, buying, selling, manufacturing, repairing, converting, altering, letting, hiring and dealing in light, heat and power generated by electricity, and electrical appliances and goods of every kind and character, and to purchase, lease or otherwise hold title to real estate and personal property necessary or convenient for the use of the corporation for the purposes aforesaid."

The Princeton Electric Company was organized for the purpose of "carrying on the business of generating, furnishing, distributing and selling electricity for the purpose of heating, lighting and furnishing power for all purposes, and buying and

selling electrical fixtures and supplies, and doing all other things pertaining and incident to said business."

The Hyannis Gas Company was organized for the purpose of "acquiring by purchase or otherwise carbide machinery for the manufacture of acetylene gas, pipe, gas fixtures, and other articles associated with the supplying of gas for lighting, cooking and heating, or manufacturing and producing, selling, exchanging or bartering, when so manufactured and produced, acetylene gas; of selling, dealing in, exchanging or bartering gas fixtures, carbide and other articles associated with the supplying of gas for the purpose of lighting, cooking and heating; and to this end, of acquiring and taking over the entire business as a going concern now carried on and transacted for the manufacture and sale of acetylene gas, and the sale of gas, fixtures and other articles associated with the supplying of gas for the purpose of lighting, cooking and heating at Cotuit, Mass., under the name of Cotuit Acetylene Gas Company Plant, and all of the assets and liabilities of said Hyannis Acetylene Gas Plant and of said Cotuit Acetylene Gas Plant in the business so carried on by them, and to acquire the entire plants, consisting of land and buildings, stock on hand and in process, the benefit of all outstanding contracts and bills and accounts receivable; of acquiring by purchase, or otherwise, machinery for the manufacturing of electricity and other articles associated with the manufacture and sale of electricity for purposes of lighting, heating and power of manufacturing and producing; selling, dealing in, exchanging or bartering, when so manufactured and produced, electricity at Hyannis, Mass., for the purpose of lighting, heating and power; of acquiring by purchase, or otherwise, selling, dealing in, exchanging or bartering when so obtained electricity at Hyannis, Mass., for purposes of lighting, heating or power."

The Seekonk Electric Company was organized for the purpose of "manufacturing, producing, transmitting, buying, selling and supplying electricity for use for light, heat and power in the towns of Seekonk and Swansea within said Commonwealth."

The Barnstable Electric Company was organized for the

purpose of "making, transmitting and selling electricity for light, heat and power in the town of Barnstable, and also in the town of Yarmouth, both within said Commonwealth, and of owning and operating works therefor."

The West Boston Gas Company was organized for the purpose of "buying, making, selling and distributing at wholesale to cities, towns, gas companies, and gas and electric companies in the Commonwealth of Massachusetts, but not to private consumers, gas for lighting, heating, cooking, chemical and mechanical purposes, and buying, making, selling and distributing at wholesale or retail to cities, towns, gas companies, gas and electric companies, and other corporations, firms and individuals, by-products, incidental to such manufacture, sale and distribution of gas in the cities and towns of said Commonwealth."

The New England Power Company was organized under "The Business Corporation Law" on Aug. 21, 1911, with an authorized capital of \$1,500,000, for the following purposes, viz.: "1. To engage in the business, in all its branches, of producing, selling and delivering power of various kinds, and especially to purchase, acquire, hold, lease, sell, manage, control and utilize waters, water rights and water powers, and to construct, purchase or otherwise acquire and hold, own, lease, maintain and operate dams, power houses, canals, and any structures, building or appurtenances necessary, useful or convenient in the judgment of the corporation for the development, utilization, distribution, delivery, sale or turning to account in any manner of waters, water rights, water powers or any power or product derived or derivable therefrom in any form. 2. To acquire, hold, own and use in any lawful manner, and so far as it lawfully may do, any real or personal property or rights, titles, franchises or easements, necessary, lawful or convenient in the judgment of the corporation to enable it to carry out any of the purposes described in the foregoing paragraph. 3. To acquire by purchase, subscription or otherwise, and to own, hold, sell, assign, transfer, mortgage, pledge or otherwise deal in and dispose of any bonds, debentures or other securities or evidences of indebtedness, or any shares in the capital stock of any other corporation or corporations, association or associa-

tions, existing by or under the laws of the Commonwealth of Massachusetts, or of any state, territory or country, and while owner or holder thereof to exercise all the rights, powers and privileges to ownership, including the right to vote in respect of any shares of stock owned or held by this corporation. 4. To aid in any manner, by guarantee or otherwise, any corporation or association, any of whose shares, bonds, debentures, securities or evidences of indebtedness are owned or held by the corporation, and to do any acts or things designed to protect, preserve, improve or enhance the value of any such shares, bonds or other securities or evidences of indebtedness. 5. To invest the capital or other funds in its possession from time to time in real or personal property of any kind or in any interest therein (including shares or securities of any corporation or voluntary association) so far as permitted by the laws of Massachusetts. 6. To do such other things as may be necessary, useful or convenient, in the judgment of the corporation, to carry out any of the foregoing purposes, or to enhance the value of the corporation's property or business." Three shares of the common stock were issued for cash at the time of the organization of the corporation, and on Oct. 25, 1911, the directors voted to issue 7,500 shares preferred and 7,497 shares common, of the par value of \$100 each, in payment for certain lands or interests in lands, including easements, water powers and water and other rights adjoining or adjacent to the Deerfield River, situate in the towns of Monroe, Rowe, Florida, Charlemont, Buckland, Shelburne and Conway, respectively.

This corporation is stated in its charter to be organized under "The Business Corporation Law," which is chapter 437 of the Acts of 1903, and which particularly declares that such chapter "shall not apply to corporations organized for the purpose of carrying on within the Commonwealth the business of a . . . gas or electric light, heat or power company . . . or to any other corporations which now have or may hereafter have the right . . . to exercise franchises in public ways granted by the Commonwealth or by any county, city or town." And yet by the first paragraph, declaratory of its purpose, it may "engage in the business, in all its branches, of producing, sell-

ing and delivering power of various kinds," may "acquire, hold and utilize water powers," may "acquire, hold and operate dams and any structures useful in the judgment of the corporation for the distribution, delivery or sale of any power or product derived or derivable in any form" from water powers. It may also "acquire and use any rights, franchises or easements convenient, in the judgment of the corporation, to enable it to carry out any of the purposes described." The words quoted seem broad enough to cover making, distributing and selling electricity for light, heat or power. Attention is called to this peculiar charter at this time because the impression exists that electricity will be generated by the water-power development already undertaken by the company and will be distributed and sold within the Commonwealth.

ABATEMENT OF SMOKE.

In its last annual report the Board described the organization of the work imposed upon it by the provisions of chapter 651 of the Acts of 1910 relative to the abatement of smoke in Boston, Brookline, Cambridge, Chelsea, Everett and Somerville. Mr. William H. Gerrish who was appointed smoke inspector in 1910, has continued in charge of this department. On July 13, 1911, the Board deemed it necessary to provide him with an assistant, and appointed Mr. Warren A. Edson as deputy inspector, at a salary of \$1,200. His appointment and salary were approved by the Governor and Council, and he immediately entered upon the discharge of his duties. He is a graduate of the Massachusetts Institute of Technology as a mechanical engineer, and his experience since graduation has made him familiar with the problem of smoke abatement. He was also one of the three persons certified to the Board by the Civil Service Commission last year as eligible for appointment as chief inspector.

The Board has found no occasion yet to make any rules and regulations for the conduct of this department as permitted by the act. It has, however, continued its working policy of making

prompt investigations of all complaints received, with notice of the resulting observations to parties concerned, followed by further observations after a reasonable interval to permit correction of improper conditions. The inspectors have made on their own initiative periodic and systematic examinations and tests throughout the district, and the number of such observations made far exceed the number made upon complaints received by the Board. The chief inspector has made repeated inspections of offending plants, and has in many instances been able to offer suggestions for remedying the conditions. So far no formal hearing and order, the prerequisite for a prosecution in court for violation of the act, has been found necessary; but many cases of continued violations which have been brought to the attention of the Board have been adjusted without formal action. Hearings were held in two instances upon applications for temporary permits under the provisions of section 8 of the act, with the result that measures for more prompt relief from the offending conditions than those proposed were suggested and accepted without the necessity for formal action by the Board.

The law does not provide for the complete abatement of smoke. It does, however, provide for a progressive reduction of the volume of smoke which may be emitted. Experience has shown that the extent of abatement required is reasonable, and may be enforced not only without hardship to the owners of power and heating plants, but with increased efficiency and economy in their operation. The hostility to the act encountered in some quarters at the outset has to a considerable extent been overcome. This is in large measure due to the active interest and co-operation of the Boston Chamber of Commerce, the various organizations of locomotive and stationary engineers and firemen, and of many of the largest fuel users. The Board is convinced that further experience with the act will demonstrate not only steady betterment in atmospheric conditions in this district, but also an increasing understanding on the part of fuel users that smoke means loss which may be measured in dollars and cents. It is also demonstrating the fact that stoking

is skilled work, demanding a substantial degree of strength and intelligence.

The Board presents the following summarized statement of this division of its work for the year ending Nov. 30, 1911:—

Total number of observations:—

Stationary stacks,	4,728
Locomotive stacks (approximately), ¹	3,500
Marine stacks,	50
	<hr/>
	8,278

Total number of observations showing the emission of smoke in excess of the amount allowed by the act:—

Stationary stacks,	732
Locomotive stacks,	157
Marine stacks,	5
	<hr/>
	894

Total number of stationary stacks under observation during the year:—

Public-service plants,	53
Manufacturing plants,	455
Office buildings,	253
Residences,	11
	<hr/>
	772

Total number of stationary stacks found to be emitting smoke in excess of the amount allowed by the act:—

Public-service plants,	12
Manufacturing plants,	388
Office buildings,	74
Residences,	1
	<hr/>
	475

Number of stacks found after first notice or visit of chief inspector to have ceased emitting smoke in excess of the amount allowed by the act,	345
Number of stacks so found after more than one notice or visit,	90

¹ Only observations of an emission of smoke in excess of the amount allowed by the act have been recorded.

Number of stacks from which the emission of smoke contrary to the requirements of the act had been observed and had not ceased at the close of the year: —

Public-service plants,	2
Manufacturing plants,	32
Office buildings,	6
	<hr/>
	40

Total number of complaints by citizens received during the year: —

December, 1910,	10
January, 1911,	7
February, 1911,	2
March, 1911,	4
April, 1911,	4
May, 1911,	9
June, 1911,	0
July, 1911,	4
August, 1911,	0
September, 1911,	2
October, 1911,	2
November, 1911,	6
	<hr/>
	50

VOLUNTARY ASSOCIATIONS. .

By the provisions of chapter 441 of the Acts of 1909 (approved May 24, 1909), "Trustees of a voluntary association under a written instrument which is divided into transferable certificates of participation or shares, who own or control a majority of the capital stock of a . . . gas company or electric light company, shall annually on or before the first day of May file . . . with the board having supervision of such company a statement showing the number of shares of such company owned or controlled by them and the stockholders of record on the books of such company in whose name such shares are held." Under this act statements were filed on or before May 1, 1910, by the trustees of the following-named voluntary associations, viz.: —

NAME OF VOLUNTARY ASSOCIATION.	Names of Gas or Electric Light Companies owned or controlled.	Number of Shares owned or controlled by Association.	Total Shares outstanding.
Cambridge Electric Securities Company,	Cambridge Electric Light Co., .	6,188	8,500
Commonwealth Gas and Electric Companies,	Athol Gas and Electric Co., .	2,143	2,143
Ludlow Manufacturing Associates,	Marlboro-Hudson Gas Co., .	1,300	1,300
Massachusetts Electric Companies,	Ludlow Manufacturing Co., .	7,500	7,500
	Hyde Park Electric Co., .	2,151	2,875
	Boston Consolidated Gas Co., .	151,106	151,246
	East Boston Gas Co., .	22,708	23,000
Massachusetts Gas Companies,	Citizens' Gas Light Co. of Quincy, .	3,830	3,830
	Newton and Watertown Gas Light Co., .	5,600	5,600
	Adams Gas Light Co., .	600	600
	Arlington Gas Light Co., .	1,000	1,000
	Ayer Electric Light Co., .	300	300
	Clinton Gas Light Co., .	246	246
	Gloucester Gas Light Co., .	2,926	3,000
	Leominster Electric Light and Power Co., .	800	800
	Leominster Gas Light Co., .	492	492
	Lexington Gas Co., .	400	400
Massachusetts Lighting Companies,	Milford Electric Light and Power Co., .	400	400
	Milford Gas Light Co., .	713	723
	Mill River Electric Light Co., .	150	150
	North Adams Gas Light Co., .	2,000	2,000
	Northampton Electric Lighting Co., .	1,174	1,174
	Northampton Gas Light Co., .	4,798	4,800
	Spencer Gas Co., .	968	968
	Williamstown Gas Co., .	400	400
	Worcester County Gas Co., .	850	850
Massachusetts Light and Traction Companies,	Barnardston Acetylene Light Co., .	22	23
New England Investment and Security Company,	Hatfield Gas Co., .	72	95
	Central Massachusetts Electric Co., .	1,500	1,500
	Malden Electric Co., .	4,151	5,250
	Malden and Melrose Gas Light Co., .	13,564	15,840
North Boston Lighting Properties,	Peoples' Gas and Electric Co. of Stoneham, .	100	100
	Salem Electric Lighting Co., .	5,074	5,500
	Suburban Gas & Electric Co., .	5,977	6,752
	Buzzards Bay Electric Co., .	105	110
Boston Electric Associates,	Vineyard Haven Gas and Electric Light Co., .	95	100
	Vineyard Lighting Co., .	245	250

RECOMMENDATIONS FOR LEGISLATIVE ACTION.

During the past year certain developments in the field of electrical promotion have directed the attention of the Board to a lack of precision in the statutory provisions relating to companies engaged in the supply of electricity. Many of the more important features of public regulation seem to apply to "electric light" companies only, but there is no statutory definition of this term. A distinction between "electric light" and "power" companies was evidently intended by the various statutes, and for this reason, as a practical question of administration and policy, this distinction has been observed, but the

rapid development in the methods of generating, transmitting and selling electricity, and its more varied and extended use, have tended to make such distinction somewhat uncertain and increasingly difficult of application. Indeed, the Board for some time past has been in a measure compelled to act on the theory that an electricity supply company is engaged in selling electrical energy or power even though it may be still within the statutory designation of an "electric light" company, and that its obligations and duties are not necessarily controlled by the use which its customers may make of the electricity supplied.

Hitherto the so-called "power" companies have had an anomalous position. They have organized either by special charter or under Revised Laws, chapter 110, relating to manufacturing corporations, with only such amount of supervision and regulation as appertains to private manufacturing corporations as such. But these companies are occupying the public streets to some extent and must continue to do so in order to reach their customers, and as their activities increase they tend to resemble more and more closely in their public relations "electric light" companies whose public character and duties have long been recognized and enforced. The importance to the public welfare of a policy which may encourage this new development, and at the same time determine and properly protect the public interest, can hardly be overestimated. To this end it seems to the Board desirable that the important features of public supervision and regulation now imposed upon certain corporations shall be made applicable to all those engaged in the supply of electricity.

This step, however, will not clear away all the confusion and doubt which is of growing importance in the interpretation of the statutes relating to gas and electric companies. The existing legislation has gradually developed from the original conception of such companies as ordinary private manufacturing corporations to the present well-established view that they are important public service agents. Due to this process of evolution, the statutes relating to them are found scattered through several chapters of the Revised Laws, some of which concern corpora-

tions of a very different character. To bring these scattered provisions together in a logical and consistent arrangement, in the same manner in which the railroad and street railway laws were recently codified, will in the opinion of the Board be of substantial convenience to the public and assist in maintaining a consistent policy in harmony with the general intent and spirit of the law. The Board, therefore, recommends that it be given authority to prepare such codification and submit the same with such changes in the existing law as may seem desirable for extending the State's supervision and regulation to all companies engaged in the supply of electricity for the consideration of the next General Court.

In the Business Corporation Law (Acts of 1903, chapter 437) it is provided in section 1 that the act "shall not apply to corporations organized under general or special laws of this commonwealth for the purpose of carrying on within the commonwealth the business of a . . . gas or electric light, heat or power company . . . or to any other corporations which now have or may hereafter have the right to take or condemn land or to exercise franchises in public ways granted by the commonwealth or by any county, city or town."

Companies may lawfully be organized to hold and own the whole or a majority of the stock of other corporations, domestic or foreign, but there has been considerable doubt whether a holding company so organized may own the whole or a majority of the capital stock of two or more gas or electric light, heat or power companies. During the past year, however, the question has been definitely raised, and the Attorney-General has ruled not only that a holding company so organized may do this, but that a holding company may be incorporated for the express purpose of so doing. The Board is unwilling to believe that, had the question been explicitly brought to the attention of the Legislature when this act was under consideration, it would have so framed the Business Corporation Law as to permit a corporation to carry on by indirection any of the businesses which are expressly excluded from incorporation under that act. The Board, therefore, recommends that corporations organized under the act referred to be prohibited from owning the whole

or a controlling interest in the capital stock of a gas or electric light, heat or power company.

The following drafts of bills are respectfully submitted:—

RESOLVE PROVIDING FOR THE CODIFICATION OF THE LAWS RELATIVE TO THE DISTRIBUTION AND SALE OF GAS AND ELECTRICITY.

Resolved, That the board of gas and electric light commissioners be directed to revise, consolidate and arrange the general laws of the commonwealth pertaining to the manufacture, distribution or sale of gas and electricity and to corporations engaged therein, not including street railway, telephone or telegraph companies, and in connection therewith to consider the expediency of extending the existing provisions for supervision and regulation to all such corporations. Said board shall report to the next general court not later than the fifteenth day of January.

AN ACT RELATIVE TO HOLDING CAPITAL STOCK OF GAS OR ELECTRIC LIGHT, HEAT AND POWER COMPANIES.

Be it enacted, etc., as follows:

SECTION 1. A corporation organized under "the business corporation law", being chapter four hundred and thirty-seven of the acts of nineteen hundred and three, shall not, without the authority of the general court, own or control more than ten per cent of the capital stock of a corporation organized under the general or special laws of the commonwealth, for the purpose of carrying on within the commonwealth the business of a gas or electric light, heat or power company.

SECTION 2. This act shall take effect upon its passage.

ORDERS AND DECISIONS.

Price and Quality.

NORTH ADAMS PETITION.

This was a complaint under section 34 of chapter 121 of the Revised Laws, by more than twenty customers of the North Adams Gas Light Company, relative to the price and quality of the gas and electricity supplied by said company. Public hearings were given in North Adams, at which the petitioners and the company were represented by counsel.

This is the first formal complaint against this company under the statute, either of its prices or of the quality of its service. Although the petition complained of the quality of the supply,

there were but few specific criticisms of the service at the hearing, and these appeared to be such as might be naturally incident to the plant reconstruction then in progress.

The company was organized under a special legislative act in 1864 for the manufacture and sale of gas in North Adams. In 1890 it was duly authorized to engage in the business of making and selling electricity, and thereupon purchased the property of the North Adams Electric Light and Power Company, and has since continued in the supply of electricity for light and power in North Adams. It also manufactures and sells gas and electricity to the Adams Gas Light Company for distribution and sale in the town of Adams; to the Williamstown Gas Company for a like supply in Williamstown; and electricity to the company supplying the town of Stamford, Vt. It has sold in North Adams about 70 per cent. of its gas output, and about 89 per cent. of its income from electricity has come from sales in that city.

In North Adams the maximum net price for gas was \$1.05 per thousand feet, with special discounts to certain large consumers. The maximum net price for electricity for lighting was 13½ cents a kilowatt hour, with lower rates to customers using more than 15 kilowatt hours a month. The maximum net price for electric power is 4 cents a kilowatt hour, with a minimum charge of \$1 a month for each horse power of motors installed. These prices, which date from Jan. 1, 1910, represent reductions from previous maximum net prices of 30 cents a thousand for gas, and 1 cent a kilowatt hour for electric power. When these reductions were made, a minimum charge was imposed of 50 cents a month for gas customers whose net bills average less than that during the year, and of \$1 a month for electric light customers whose yearly net bills average less than that amount. Particular complaint was made at the hearing against these minimum charges, none of which had been previously included in the company's tariff. At the time of the hearing the company was engaged in a thorough reconstruction of the electric station and its equipment, which has since been completed.

From an examination of the company's return to the Board for the fiscal year ending June 30, 1910, it appeared that the dividends for that year were somewhat increased, but that even

with no allowance for depreciation the gross profits were not sufficient to pay the interest and dividend charges, these being paid in part from surplus previously earned. It also transpired that the operating costs for the gas and electric departments amounted, respectively, to 85 and 88 per cent. of the income. These figures seem to indicate that either the selling prices were already too low or the operating costs too high. It accordingly became necessary to make a careful examination of the company's accounts, its business methods, and many of its contracts, invoices and vouchers. All of its accounts appear to be kept with care and precision, and exhibit the conditions under which the business is carried on. These conditions have an important bearing upon the reasonableness of the operating costs.

During the first half of the year 1909 practically all of the capital stock, which for the most part was owned in North Adams, was acquired by the Massachusetts Lighting Companies, an unincorporated voluntary association. This association controls in the same manner 16 other gas and electric light companies within the State, and the Light, Heat and Power Corporation, chartered under the laws of the State of West Virginia. The last-named company is organized for the purpose of manufacturing, selling and purchasing machinery and appliances, building, equipping, leasing and selling water, light, power and heat plants and pipe lines, and furnishing machinery and appliances to be used in connection therewith, and maintaining and operating such plants. Its responsible officers are identical with those of the North Adams Gas Light Company, and although the latter has the usual corporate officers, regularly chosen for the conduct of its affairs, nearly all its operations, especially its plant construction and the purchase of its supplies, are virtually carried on by the Light, Heat and Power Corporation. Such relation is not evidenced by a written contract between the two companies, but is secured through the identity of their ownership and of their principal executive officers. The relations thus established are so peculiar and intimate that it was apparent that such a knowledge of its affairs as was desirable for a proper consideration of this petition could only be obtained

by an examination of the books of the Light, Heat and Power Corporation, so far as they pertained to the relations between the two companies. The privilege of such examination was requested by the Board, and after deliberation granted by the officers of the company.

This examination revealed that nearly all of the supplies used by the North Adams company, as well as its new construction, were obtained from the Light, Heat and Power Corporation at a substantial profit to the latter. Of the total expenditures of the North Adams company for all purposes, amounting during the fiscal year ending June 30 to about \$318,000, something more than \$240,000 was paid the Light, Heat and Power Corporation for current supplies and new construction work; and of this, nearly \$27,000 represented commissions to the latter corporation, or advances over the amounts actually expended by it for the same work and material. Of the amounts named as commissions, about \$8,000 were on account of current supplies and the remainder for additions to the plant. Substantial sums paid the Light, Heat and Power Corporation for engineering services during the same period are not included in these figures.

The identity of the executive officers and the method of charging for their services gives importance to another feature of the operating costs, and complicates still further the relations between the two companies. The accounts of the North Adams company show, under the present management, a very large increase in that part of the operating cost represented by the salaries of its executive officers, who occupy similar positions in the Light, Heat and Power Corporation, and receive from it compensation for their services to that concern. To determine definitely the reasonable compensation of the incumbents of these respective positions is a matter of great difficulty, but in view of the peculiar relations of the Light, Heat and Power Corporation to the others, it may be safely assumed that the salaries actually realized by the executive officers of the Light, Heat and Power Corporation as such ought to be and are in fact quite the full compensation of these officers for their entire services in behalf of the allied corporations; that the combined

salaries apparently paid to these officers by the several companies are larger than the volume of the business or its character would justify, or that the interest of the owners, the Massachusetts Lighting Companies, would permit; and that the exhibit of these salaries upon the books of the North Adams company, while correct in appearance, are fictions of accounting rather than representations of the actual facts.

The method of carrying on the business thus described has not only contributed to advance the operating costs to the high percentage named, but the rendering of monthly bills by the Light, Heat and Power Corporation for its numerous claims against the company has kept the North Adams company almost constantly in debt to it, making necessary the immediate transfer of most of its income directly to that corporation; and has enabled the Light, Heat and Power Corporation to add to its other profits interest upon the average balance of the debt thus created. All the facts combined lead to the conviction that the method of carrying on the business has substantially increased the current charges of the company beyond what they might be were the business conducted in the manner usual with an independent company. The whole arrangement tends to mislead the public as to the actual reasonable cost of carrying on the North Adams company, and so is directly contrary to the spirit and purpose of the law providing for the regulation and supervision of such concerns.

The company ought not to pay twice for carrying on its affairs. If they are conducted by the Light, Heat and Power Corporation, which is paid therefor, the officers of the North Adams company can have only nominal duties and should have only nominal compensation. It is the duty of this Board in fixing a price to determine whether the operating costs are reasonable and fair. Whether the cost of management be paid to a corporation, an association or a single person may not be of importance to the public, but the public is concerned with the character of the management and the reasonableness of its cost. The company is entitled to a reasonable profit above only reasonable costs. Reasonable profits presuppose or are based only on reasonable costs.

In justification for the course of dealing between the two companies, it may be urged that because of the large purchases of supplies by the Light, Heat and Power Corporation for the several companies to which it is related it can supply them at a profit to itself for less than the individual concerns can buy in the open market. To some extent this claim may be successfully made, but in the opinion of the Board the actual charges for this service to the North Adams company are too great to be justified under that proposition. In so far as a unified management of a group of companies actually promotes economy in operation, and increases the ability to serve the public, it is entitled to commendation and a liberal reward; but even under these conditions it is neither necessary nor wise that the entire profit from that endeavor should be taken by the owners. It is not a question whether any additional profit is to be accorded to superior management, but rather how much is reasonable and fair. The outstanding capitalization of the association controlling these companies, which amounts to more than \$3,500,000, and is greatly in excess of the capital stock and bonds which its subsidiary lighting companies might, under the most liberal administration of the law, be authorized to issue, and the peculiar relation assumed by the Light, Heat and Power Corporation, create a situation whose necessities invite the taking of a heavy toll from the public.

In view of these facts and principles the Board was of the opinion that a further reduction in the maximum price for both gas and electricity might reasonably be required of the company, and that the prices hereinafter named are sufficient to cover reasonable operating expenses, including a proper allowance for depreciation and a fair return upon the value of the property which the company is reasonably and actively employing for the public convenience.

With respect to the minimum monthly charges for gas and electric lighting, the money value of these charges is not important to the company. No such charge had been made by the former management. The company had been and would probably continue to be prosperous without it. It is supported by the claim that the readiness of the company to supply is a conven-

ience to the customer, and a service which has value even though he may not actually use the light, and that such service is of some cost to the company, which ought not to be required to render any service at a loss. The statutes appear to indirectly recognize the legality and justice of some charge in the case of the gas supply, but make no attempt to determine its fair and reasonable amount. It is, under any conditions, extremely difficult to determine the cost of such service. It may, indeed, be impossible to determine it in any individual case. If any such charge is to be made its amount must, therefore, be determined somewhat arbitrarily with reference to other considerations rather than its cost. While it is doubtless true that any public-service company may sometimes be legally and reasonably required to render certain services without a demonstrable profit, or even at less than the apparent cost, to require a company to give any service continuously or repeatedly at an obvious loss would be manifestly unjust and inexpedient. When any amount of gas or electricity is used for which the customer pays, the company receives some return, and while it may be impossible to show that such return is an adequate one, it may be equally difficult to prove that the service has been rendered at a perceptible loss.

In our opinion, if any minimum charge is to be made by the North Adams company, whose practice is to render monthly bills, it should be restricted to those cases where the customer has used less than 100 feet of gas or 1 kilowatt hour of electric current, and where, because of the smallness of such quantity, it is the custom not to render a bill therefor.

For the reasons suggested the Board recommended: —

That on and after the first day of May next the net price charged for gas by the North Adams Gas Light Company shall not exceed \$1 a thousand feet.

That on and after the first day of May next the net price for electricity for any use supplied by the North Adams Gas Light Company shall not exceed 12½ cents a kilowatt hour.

That after the first day of May next no minimum charge for gas shall be made by the North Adams Gas Light Company against any customer for any month unless in that month said

customer uses less than 100 feet of gas, nor during any portion of twelve consecutive months if during said time the customer uses gas to the value of \$7; and that if a minimum charge be made, it shall not exceed 50 cents for any one month.

That after the first day of May next no minimum charge for electricity for lighting shall be made by the North Adams Gas Light Company against any customer for any month unless in that month said customer uses less than one kilowatt hour of electricity, nor during any portion of twelve consecutive months if during said time the customer uses electricity for lighting to the value of \$12; and that if any minimum charge be made it shall not exceed \$1 for any one month. (April 3.)

PLYMOUTH ELECTRIC PETITION.

This was a complaint in writing under section 34 of chapter 121 of the Revised Laws, by the selectmen of the town of Plymouth, of the quality and price of electricity supplied in said Plymouth by the Plymouth Electric Light Company.

After due notice a public hearing thereon, as required by law, was held in Plymouth, at which the petitioners and company were represented by counsel. The complaint, so far as it concerned quality and the price for commercial lighting and power, was waived by the selectmen at the hearing, which was confined to the question of the price of streets lights only.

Prior to August, 1907, the company was supplying for street lighting about 330 incandescent carbon filament lamps and 8 nominal 1,200 candle-power arcs. Three of the incandescents were 32 candle-power and the others 25 candle-power, and all burned upon a midnight moonlight schedule. Of the arc lamps, one burned all night and the others upon the same schedule as the incandescents. In that month the company of its own accord, but with the approval of the selectmen, began the gradual replacement of these incandescent lamps with 40 candle-power tungsten filament lamps. The displacement of the carbon filament lamp was gradual over the system, and no definite record has been preserved of the number of lamps of each kind in use at any particular date. In the later portion of this period of change the arc lamps were replaced by clusters of 5 incandes-

cents, and a limited number of 200 candle-power tungsten incandescent lamps were installed. All the arc and carbon filament lamps were thus replaced by tungsten incandescents.

Before and after the above changes in the lamps the company charged and the town paid \$21 a year for the 32 candle, \$20 for the 25 candle incandescent and \$125 a year for the all-night arc, and \$85 a year each for those burning until midnight.

Prior to the annual town meeting in 1909 the company offered, provided a five-year contract were made, to supply upon moon schedule the incandescent lights until midnight at \$18 a year, and all night at \$21 a year, with a uniform price of \$105 per year for the arcs, all the incandescents to be 40 candle-power tungstens. The selectmen recommended that the all-night proposition be accepted, and that all the arcs be replaced by incandescents, either singly or in clusters of 5 for each arc lamp. No action, however, was taken by the town beyond referring the question of street lighting to a committee consisting of the selectmen and five other citizens, to report at a future meeting. At the annual town meeting in 1910 the selectmen were authorized to make a contract, for a term not longer than five years, for lighting the streets, on such terms and conditions as they may think proper, but were also instructed to enter a complaint with the Board of Gas and Electric Light Commissioners as to the quality and price of electricity furnished by the company.

All the arc lamps having been displaced by clusters of 5 each, as already described, the lamps in actual use appeared to be 336 40 candle-power 50-watt tungstens, 3 250-watt tungstens and 8 clusters of 5 40 candle-power lamps each. All these burned upon a moonlight schedule until midnight, except 7 of the clusters, which burned all night. The lamps, however, were billed to the town in the same way as in August, 1907; that is to say, bills were made for 336 25 candle-power lamps at \$20, 3 32 candle-power at \$21, 7 arcs at \$125 and 1 arc at \$85 per year.

In August, 1907, the price for commercial lighting was 20 cents a kilowatt hour, with discounts from 5 per cent. upwards, according to the size of the bill. Prior to the petition in this case these prices had been reduced to a maximum rate of 18 cents with a sliding scale to 10 cents, according to the amount

used monthly, and a discount of 10 to 20 per cent., according to the number of nights burned per week.

Under this scale of prices for commercial lighting the company received during the fiscal year ending June 30, 1910, for all electricity sold for this purpose, an average of but little more than 8 cents a kilowatt hour. As the complaint relative to the commercial business was distinctly waived, these prices are mentioned only to aid in understanding the position and claim of the selectmen hereinafter stated, and it is not the purpose of the Board to endorse the company's schedule of prices for light and power or to express any opinion with respect to it.

It was contended, in support of the complaint, that the price charged for the incandescent lamps, taking into account prices charged in other towns of the Commonwealth, was too high; that, irrespective of prices elsewhere for 25 candle-power carbon filament lamps, the price for tungsten lamps should be less, because the latter, though of higher candle-power, consume less current than the former; and that, compared with the prices charged by the company to its other customers, the price for street lights was too high. In connection with the last proposition it was contended that the price for street lights should be based on the theoretical consumption of current by the lamp, either at the average rate charged for commercial lighting or at the average of all lighting, commercial and public, or upon the same schedule as commercial lighting, all the street lamps being regarded as the installation of a single commercial customer with an annual bill. On the other hand, the company contended that the candle-power was the true measure of the value to the town of the street lights, and a proper basis for the price. Neither party relied on any attempt to separate the company's investment and operating costs for the street lights, and to base the price upon these with a fair return upon such portion of its investment.

While evidence of prices charged in other communities for street lights is not without weight, it can seldom if ever be regarded as controlling. Its force is also greatly weakened by the fact that such comparisons must usually be made with prices charged for carbon filament lamps, or originally made for such lamps and continued even where, as is now so common, tungsten

lamps have been substituted; and by the further fact that, until very recently, in fixing prices for street lights no consistent, rational theory has been followed, either by the companies or by the public authorities, save a purpose on both sides to make the best trade possible. Whatever force may have formerly attached to the candle-power as an arbiter of rates, it must under present business methods and the development of the art be supplanted by a consideration of the energy supplied.

It must be conceded that, based upon cost alone, street lamps of the tungsten type and of the same or even of a somewhat higher candle-power can be supplied at a less price than the carbon filament lamps, until recently exclusively used, because of their lower cost to maintain and operate; but it is by no means clear that such reduction in cost is proportional to the difference in the amount of energy consumed in the lamp. Neither those investment, distribution and management costs which necessarily enter into and constitute a substantial share of the total, nor, for that matter, certain of the costs of producing the electricity, seem to be in any degree reduced by the substitution of tungsten for carbon filament lamps. Coal and possibly repairs and maintenance with some minor supplies at the station, appear to be the only items of street lighting cost of which it may be safely claimed that they vary according to the quantities of energy made and used. The actual saving to the company in these items, due to the less amount of energy required for the tungsten as compared with the carbon street lamps in Plymouth, based upon the figures of the fiscal year ending June 30, 1910, appeared to be somewhat less than \$1 a year for each lamp, although the reduction in energy used in the lamp is more than 40 per cent. Indeed, the tendency of the introduction of tungsten lamps for both commercial and street lighting purposes is to increase the cost per unit, because of a reduction in the total units sold without any reduction in costs outside the generating station, — a tendency which obviously can be checked and overcome to a large extent on the other hand by the general development of the business and by other factors of importance. However, unless the prices charged or offered for carbon filament lamps are assumed to be reasonable, the in-

quiry as to the amount of reduction justified by the substitution of tungstens offers no real solution to the problem as to what price the town should in fairness pay.

The proposition that the price of street lights should be based strictly upon the amount of energy required to operate the lamps, and should be made upon the same or as advantageous terms as are offered to private consumers, is more fundamental.

Just why any more weight should be given to the suggestion of an average price received rather than any other price in the company's varied schedule was not fully explained. The average price, which is determined by dividing the total receipts from all customers by the total kilowatt hours sold, is not, unless by chance merely, the price offered to any customer. It may be that no customer ever pays exactly that price, and it is difficult to see why, if the street lights are to be governed by the commercial schedule, that price rather than some other of the numerous prices which it contains should be adopted. That it was a very attractive proposition to the town is evident, because it would result in an exceptionally low price for the street lights, the average price received by the Plymouth company for commercial lighting being lower than in most companies of its size in the State. It is important also, as a general proposition, because if applicable in Plymouth it is difficult to see why it might not be applicable to all other companies.

The Board was unable to agree with the contention that the current used in all of the lamps should be combined and treated as the energy supplied to a single consumer; in other words, that all the lamps should be taken together and considered as a single installation of a large consumer. It is quite true that the billing and collection costs are minimized under the conditions of street lighting supply and become those of a single customer, but the numerous and widely scattered installations, and the investment and maintenance charges incident thereto, which constitute by far the more important items of cost, give to each lamp or group of lamps many of the characteristics of an individual customer of small size, if the commercial scale of charging is to be applied.

If the rule were to be generally adopted of charging for these lights merely in proportion to the current used the price for a

lamp of relatively low candle-power and high wattage, like the carbon filament lamps in common use until recently in Plymouth, would be very much greater than for the relatively higher candle-power and low wattage tungsten lamps, although the latter are clearly of greater value to the public. It is equally clear that this method of charging would make the price for all-night lighting approximately double that for midnight lighting, a principle which no company has yet attempted to impose, and one which municipalities, it is safe to say, would be absolutely unwilling to adopt. Prosperous and well-managed companies have found all-night lighting profitable upon a wholly different basis, and municipalities have long been accustomed to pay proportionately less for all-night than for midnight lighting.

While these suggestions illustrate the difficulty of adopting, without qualification, the rule proposed by the town, yet the proposition that the basis of the charge for incandescent street lighting should be the commercial rate is an important one and entitled to great weight. With equal emphasis in other cases it has been urged that in fixing street lighting prices the Board should determine the fixed and variable costs for such service, and completely separate these costs from those of every other portion of the business. Strong reasons are found in support of both propositions. The Board in this case found it neither necessary nor practicable to rely implicitly upon either, although giving to both, in connection with the other circumstances of the case, due weight in the solution of the problem in hand. The Board is nevertheless convinced that companies should more fully recognize the reasonableness of the claim by municipalities to have their street lamps supplied upon as advantageous terms, all things considered, as are offered to private customers, and believes that the same theories of commercial expediency which have been so persistently applied in making commercial lighting and power rates may, with no less fairness, be applied to the street lighting schedule. Street lighting may fairly be required to bear its reasonable proportion of all necessary costs, sharing such losses as may be unavoidably incident to the business as a whole, but its fair price is not necessarily determined upon the commercial rates, especially if these for any cause happen to be

unreasonably low or high, nor upon special claims distinct from those of the entire volume of the business. The methods of determining public and private lighting prices in any case must be directed to a single end, namely to determine what is a fair price, taking into consideration all the facts and circumstances involved in the case; but prices no more than dividends are governed by arbitrary or inflexible rule, nor are they wholly exempt from those business conditions and necessities which are dominant in every company. It is from this standpoint, recognizing the force of the town's contention, but as a conclusion from all the facts developed at the hearing, and in the subsequent examination of the company's affairs that the Board reached its recommendations.

With a view to a fuller understanding of the Board's position some reference may be made to the company's financial ability and condition. This company was originally organized under the laws of New Hampshire in 1886, and was reorganized under the laws of this State in 1888. It has experienced, in an unusual degree, the vicissitudes incident to the progress of the art since it began the supply of electricity. Prior to the filing of this complaint the company had paid to its shareholders since organization only two dividends, amounting in all to 3 per cent. While it has apparently endeavored to maintain its prices in correspondence with other companies of similar size, it has never been able to recover out of income an amount sufficient to meet the depreciation and necessary cost of reconstruction of its plant. Its generating plant has, however, been recently very largely reconstructed, with efficient apparatus of the present-day type. For these reasons and in this way the company has acquired a substantial burden of debt which, so far as it represents depreciation cost, must be extinguished, if at all, out of income and not out of new capital. Such financial condition, while it imposes upon the company a conservative course as to dividends, and in no respect lessens the regard it should have for the interests of the public in fixing its rates, may also fairly justify it in an endeavor to eliminate, in a reasonable time, that part of its indebtedness which represents the depreciation of the plant, for which provision has not been made

hitherto. When this is accomplished further reductions in both public and private lighting prices may be confidently expected. The earnings of the company, under all the circumstances, do not appear to have been excessive, nor its financial policy, up to the time of the hearing, open to particular criticism.

Following the principles suggested the Board considered the prices named in the following recommendations to be reasonable and fair for lamps of the type and candle-power installed. The Board recommended: —

That on and after the first day of August, 1911, the prices for street lights supplied by the Plymouth Electric Light Company for moonlight lighting, substantially as heretofore, shall not exceed the prices named in the following schedule, to wit: —

For 50-watt 40 candle-power tungsten lamps burning until midnight, not more than \$16 each per year.

For 50-watt 40 candle-power tungsten lamps burning all night, not more than \$20 each per year.

For 250-watt 200 candle-power tungsten lamps, or their equivalent in clusters of 5 50-watt 40 candle-power lamps, each burning until midnight, not more than \$71 per year.

For 250-watt 200 candle-power tungsten lamps, or their equivalent in clusters of 5 50-watt 40 candle-power lamps, each burning all night, not more than \$89 per year. (July 28.)

Appeals.

ATHOL APPEAL.

In the matter of the appeal of the Athol Gas and Electric Company from a decision of the selectmen of Athol, dated Oct. 21, 1910, granting to the L. S. Starrett Company of said Athol the right to transmit electricity over or under certain streets in said Athol, pursuant to a written agreement signed by the Athol Gas and Electric Company and the L. S. Starrett Company, filed with this Board, it was —

Ordered, That said appeal be sustained and that said decision and order of the selectmen be annulled. (March 4.)

APPEAL FROM THE MAYOR AND ALDERMEN OF WORCESTER. —
WORCESTER ELECTRIC LIGHT COMPANY v. ALFRED S.
LOWELL.

This is an appeal by the Worcester Electric Light Company, under section 27 of chapter 121 of the Revised Laws, from a decision of the board of aldermen of the city of Worcester, adopted Dec. 5, 1910, and approved by the mayor Dec. 15, 1910, which reads as follows: —

Whereas, Alfred S. Lowell of the city of Worcester has petitioned this board for the right to lay and maintain conduits and mains in Foster Street, to supply heat, light and power to the premises occupied by A. S. Lowell Company at the corner of Main and Foster streets, which petition is as follows: —

To the Board of Aldermen of the City of Worcester.

The undersigned, residing in the city of Worcester, most respectfully petitions your honorable board: —

That he is the owner of a plant which furnishes heat, light and power to his own building at the corner of Foster and Norwich streets in said Worcester; that he desires to supply heat, light and power from said plant to the premises occupied by A. S. Lowell Company in the building situated at the corner of Foster and Main streets in said Worcester, of which corporation he is the principal owner; that in order to do this it is necessary to lay a conduit and main in said Foster Street; that the distance diagonally across Foster Street from the building in which said plant is located to the building in which said store is located is 140½ feet; that the distance from curb to curb is 116½ feet.

Wherefore he petitions your honorable board for the right to lay a conduit and main in said Foster Street, and to erect the necessary wires and connections in order to accomplish the same.

ALFRED S. LOWELL.

And whereas due notice of the filing of said petition has been given to all parties in interest and a hearing had, as required by law.

Now, therefore, so far as this board has authority in the matters contained in said petition it is hereby ordered that: —

1. The petitioner is given permission, subject to the conditions and stipulations hereinafter stated, and subject to the approval of the wire commissioners of the city of Worcester, as provided in chapter 372 of the Acts of the year 1902, to construct, lay and maintain conduits and main and lay wires therein under and across Foster Street diagonally from the building at the southeast corner of Foster and Norwich streets to the building on the northeast corner of Main and

Foster streets, for the purpose of supplying heat, light and power.

2. The locations of the mains and conduits hereby consented to, under and along the portions of the public highways known as Foster Street, are as shown upon the plan thereof annexed hereto and made a part hereof.

3. All conduits or mains or wires located, constructed, and maintained hereunder shall be of such size, design and construction, and shall be strung in such manner under the public ways hereinbefore mentioned, as shall be first approved, in writing, by the commission on wires and electrical appliances of the city of Worcester.

4. No street or portion of a street shall be dug up or opened for laying, repairing or removing conduits or wires in the streets hereinbefore mentioned until written permission therefor is first obtained from the street commissioner of the city of Worcester.

5. The petitioner shall not remove the mains, conduits or wires placed in the streets under this permission unless first permitted so to do by order adopted by the board of aldermen; and said petitioner shall remove all mains, conduits, wires or constructions erected or maintained in the streets hereinbefore mentioned when ordered so to do by order adopted by the board of aldermen; and in case the petitioner refuses or neglects to comply with such order for thirty days after notice thereof all rights and privileges then enjoyed or exercised by the petitioner shall thereupon cease.

6. Whenever any mains, conduits, wires or constructions authorized under this petition shall be placed within the locations or removed from portions of the highways herein specified, the petitioner shall, at his own expense, place the streets in and around such locations in as good order and condition as the surrounding streets may then be, and to the satisfaction and written approval of the street commissioner of the city of Worcester; otherwise the mains, conduits, wires or constructions shall be forfeited to the city of Worcester; or the street commissioner of the city of Worcester may, at the expense of the petitioner, place such street in such order and condition as he deems suitable and proper with reference to the surrounding streets.

7. This consent and permit shall not be construed as any limitation upon the right of the board of aldermen from time to time, or any board vested with like authority in the city of Worcester, to grant rights, privileges or authority similar to or different from those herein set forth, and in the same streets or portions of the street hereinbefore specified.

8. The rights and privileges hereby granted and consented to shall be exercised only by the petitioner, and in case of sale, transfer, assignment or lease of the same by the petitioner, without first obtaining an order consenting thereto, duly adopted by the board of aldermen, then all the rights and privileges herein granted to said petitioner,

and the conduits, wires or constructions placed in the streets hereunder, shall be thereby forfeited, or the city of Worcester may, at the expense of the petitioner, remove all the mains, conduits, wires and constructions, or other appliances then in or under the public streets or highways hereinbefore specified, and put such portions of such streets, in repair similar to adjoining portions of such streets, but at the expense of the petitioner.

9. The rights and privileges herein given and consented to are upon the condition that the petitioner shall comply with all the laws of the Commonwealth, ordinances of the city of Worcester and such further regulations and orders as the board of aldermen may make or adopt from time to time; and if the petitioner neglects or refuses to comply with any such regulations or orders within thirty days after notice thereof has been duly served upon him, then all rights and privileges exercised and enjoyed by him shall thereby cease.

10. The consent, rights and privileges of permission hereby granted shall continue until modified or revoked by order duly adopted by the board of aldermen.

11. This order and permission is granted upon condition that if it is accepted in the manner hereinafter set forth, the petitioner thereby assumes and agrees to indemnify and save forever harmless from all loss, cost, damage, expense and liability whatsoever, which it may pay, suffer or incur by reason of any of the acts of the petitioner exercised by virtue of this or any order of the board of aldermen, relative to the construction hereby permitted.

12. The petitioner shall, whenever requested in writing so to do by the mayor of the city of Worcester, furnish a bond in such sum and with such sureties as are approved by the mayor of the city of Worcester, which bond shall be conditioned to indemnify and protect the city of Worcester of and from all loss, cost, damage, expense and liability which it may pay, suffer or incur by reason of any of the acts of the petitioner, exercised by virtue of this or any order of the board of aldermen relative to the construction hereby permitted.

The rights, privileges and authority hereby granted shall be void and of no effect unless the petitioner accepts this order and conditions and stipulations herein contained, and in the form as hereto annexed, on or before the first day of June, A.D. 1911.

Form of Acceptance.

Whereas, the board of aldermen of the city of Worcester, by an order adopted Dec. 5, 1910, approved by the mayor, . . . granted to me the right to construct, lay and maintain conduits, mains and wires under Foster Street in the city of Worcester, in accordance with my petition to said board dated Sept. 19, 1910, I, Alfred S. Lowell, hereby

unconditionally accept the above franchise, and in consideration of the granting thereof I hereby agree to comply strictly with the terms thereof.

A public hearing was given on the appeal at Worcester, at which the petitioner, Mr. Alfred S. Lowell, and the Worcester Electric Light Company were respectively represented by counsel.

Mr. Lowell was the president and treasurer, and practically sole owner, of the capital stock of the A. S. Lowell Company, a corporation organized under the laws of this Commonwealth on July 31, 1889, for the purpose of "buying and selling, at wholesale and retail, millinery, fancy and dry goods," and having its place of business in a building at the corner of Main and Foster streets in Worcester. He was also the owner of a brick building situated at the corner of Foster and Norwich streets, distant about 140 feet from that occupied by the A. S. Lowell Company, measuring diagonally across Foster Street, a public street.

In the Norwich Street building Mr. Lowell has an electric generating plant, installed when the building was completed about twelve years ago, which he operates for the purpose of furnishing light, heat and power to the tenants of that building. This plant has sufficient spare capacity to supply the A. S. Lowell Company as well, and this Mr. Lowell desired to do. The conduit location described in the order of the board of aldermen upon which this appeal was taken was sought in order to accomplish this purpose, and Mr. Lowell disclaimed any intention of supplying electricity to any one outside of his Norwich Street building other than the A. S. Lowell Company. On the other hand, it was claimed by the Worcester Electric Light Company, and admitted by Mr. Lowell, that Main Street is the principal business street of Worcester, and that the block bounded by Main, Foster, Waldo and Exchange streets, in which the A. S. Lowell Company is located, is an important and attractive field for the supply of electricity.

The authority for granting permission to place wires underground in Worcester seems to be vested in the wire commission-

ers, under the provisions of chapter 372 of the Acts of 1902, and in respect to matters arising thereunder the board of aldermen acts merely as a board of appeal. The order already quoted, however, purports to grant to Mr. Lowell a definite location for the proposed conduit, subject to the approval of the wire commissioners. But even if some further action by the public authorities of Worcester may be requisite before Mr. Lowell's authority to construct the proposed conduit and lay the necessary wires therein is complete, yet in any event the order in question appears to be a sufficient compliance with the provisions of section 26 of chapter 121 of the Revised Laws, which requires in a city already supplied with electric light the consent of the mayor and aldermen, after notice and a public hearing, before any "other person, firm or corporation shall lay, erect, maintain or use, over or under the streets . . . of such city . . . any wires for the transmission of electricity for light, heat or power."

It is from this "consent," which deals with an important question of public policy respecting the supply of electricity in Worcester, that an appeal lies to this Board. On the other hand, no appeal to this Board is reserved, either in the special act already referred to or in the general law, from grants of specific locations for electric lines in public ways, although the "consent" from which an appeal does lie may incidentally include the granting of a specific location. The Board has had occasion in earlier decisions to pass upon this matter, and it has reached the conclusion that its duty is confined to passing upon the question of public policy presented by the appeal, and that it has no authority to modify or restrict the terms of the order itself. Furthermore, the Board's jurisdiction seems to be exhausted by one appeal. In other words, if this appeal be dismissed, and the order of the board of aldermen affirmed, the right of Mr. Lowell to engage generally in the manufacture and sale of electricity in Worcester is settled conclusively so far as this Board is concerned, and he may thereafter sell to any one within reach of the proposed line, and may also extend his lines wherever and as far as the board of aldermen shall grant the necessary street locations.

In making this last statement the Board has no purpose to question the sincerity of Mr. Lowell's assurance that he desires this conduit location for the sole purpose of supplying the corporation in which he is interested. But the meaning and effect of the order of the board of aldermen must be determined by its terms and by the conditions which may surround the exercise of the privileges granted thereby, and not by any verbal representations made by Mr. Lowell of his intentions with respect to the matter. In fact, no criticism could justly be made of him should some future change of condition or of business not at present anticipated make it desirable or necessary to modify his purpose and exercise to the full the rights acquired under this order.

The legislative policy with respect to the admission of a new company or person to supply electricity in a territory already served by an existing company, and the Board's interpretation and administration of this policy, are well known, and were not criticised or doubted by the petitioner in this case. The essential consideration is not merely the desire or the personal convenience or interest of the party applying for admission, or of those whom he proposes to supply, or of the existing supply company, but rather the general public interest. An electric light company has no necessary or legal monopoly of the territory which it serves. If it is not properly or adequately performing its public duties, a situation arises which may not only justify but require this Board to admit a competitor. But with this restriction the prevailing opinion, based upon experience, has been that the community as a whole will be more adequately and economically served by one company than, in the language of the Supreme Court, by "as many companies or persons as may be minded to put wires in the streets and try their luck."

In this case it was not contended that the Worcester Electric Light Company is not properly and adequately performing its public duties. It is true that the petitioner had a grievance against the company, but this was found to have arisen out of a mistake and was promptly remedied.

But it was urged that the order of the board of aldermen is so restrictive in its terms as to confine the use of the proposed line

exclusively to the supply of the A. S. Lowell Company, and that therefore the order should be affirmed.

A careful examination of the order fails to give substantial support to such a construction of its terms. While the petition of Mr. Lowell is quoted in the order in full, and sets forth specifically his purpose, the order permits the laying of a conduit and wires between the two buildings mentioned "for the purpose of supplying light, heat and power." It restricts the use of the privilege to the petitioner himself, but this is a restriction commonly imposed in locations granted to electric light companies, and for that matter is probably merely declaratory of the law relative to the privilege given. The order plainly does not authorize the construction of a line for "private use," for in that event the line upon construction would become the property of the city by operation of law; whereas this order expressly provides that it shall be forfeited to the city only upon breach of a condition of the grant. Even if the order were capable of the interpretation urged, there is serious reason to doubt whether the board of aldermen may grant a location for a line not for private use with a valid condition that no electricity shall be distributed thereunder save to certain designated persons or corporations.

It must be kept in mind that the law by which the rights of all concerned are to be determined makes Mr. Lowell and the A. S. Lowell Company, whatever his interest therein, two entirely distinct persons. In spite of the seeming identity of interest, the case under discussion is not one where an individual or corporation owning a lighting plant has extended the quarters necessary for the accommodation of its business by purchasing or hiring a building separated by a public street from premises already occupied. There are statutes which expressly provide for permits for private use, but they are clearly inapplicable to this case.

For the foregoing reasons the Board adopted the following: —

In the matter of the appeal of the Worcester Electric Light Company from a decision of the mayor and aldermen of Worcester, adopted on Dec. 5, 1910, and approved on Dec. 15, 1910, granting to Alfred S. Lowell of said Worcester permission to

lay and maintain conduits and wires for the transmission of electricity under and across Foster Street in said Worcester, —

Ordered, That said appeal be sustained, and that the said decision and order of the board of aldermen be annulled. (May 17.)

CLINTON APPEAL.

This was an appeal under the provisions of section 27 of chapter 121 of the Revised Laws, as extended by chapter 617 of the Acts of 1908, by the Clinton Gas Light Company from a certain order of the selectmen of the town of Clinton granting to the Connecticut River Transmission Company the authority to erect poles, and string and maintain wires for the transmission of electric energy upon, over and along certain public highways in the town of Clinton. The decision of the selectmen is fully set forth in the resolution adopted Aug. 31, 1909, of which the following is a copy: —

Whereas, the Connecticut River Transmission Company, hereinafter called the company, has petitioned the selectmen of the town of Clinton for authority to erect poles and string and maintain wires for the transmission of electric energy upon, over and along certain public highways in the town of Clinton, and

Whereas, due notice has been given and a public hearing held, as required by section 2 of chapter 122 of the Revised Laws of Massachusetts, as amended by chapter 117 of the Acts of 1906.

Be it therefore resolved, That we, the selectmen of Clinton, hereby grant said petition with reference to the following streets and highways, and authorize the company to erect poles and string wires for the transmission of electric current over, along and across the following highways and in the following places thereon in the town of Clinton: —

First. — Along, over and across West Boylston Road from the property of the Commonwealth under the control of the Metropolitan Water Board to other property under the same ownership, but no poles shall be placed upon the public highway at this point.

Second. — Along, over and across Grove Street from the property formerly of Ellen Barry to the junction of Grove and Nashua streets; thence along, over and across Nashua Street to Chestnut Street to the property of the Lancaster Mills.

The rights along, over and across the above-mentioned streets are given upon the express condition that all the wires of the company between the locations at the Barry property to the point on Nashua

Street where said wires pass along or in front of the property of the Lancaster Mills shall be placed in suitable insulated cables of lead, or such other material as the board of selectmen shall order within four months from the date of the granting of this franchise.

Third. — Along, over and across the northerly end of Oak Street to Acorn Street; thence over, across and along Acorn Street to Chace Street; thence along, over and across Chace Street to the property of Elizabeth Schimke.

The above grants hereby given to the company to erect, maintain and use poles, wires and other apparatus upon the above-mentioned public highways are given upon the following conditions:—

1. The locations of all poles, the kind of poles and the construction of wires and cables shall be as directed and approved by the board of selectmen.

2. So far as feasible, and if suitable arrangements can be made, the company and the Clinton Gas Light Company may use the same poles for the carrying of wires on the highways where pole locations are granted, and permission is hereby granted to replace the present poles of the Clinton Gas Light Company with suitable poles for carrying the electric circuits of both companies.

3. The wires of the company shall be strung not less than 20 feet above the level of the public highway, and such further height as the board of selectmen may require.

4. The voltage used on the wires of the company shall not exceed 14,000 volts under normal working conditions.

5. The company shall not refuse to deliver electricity for power or manufacturing purposes to any applicant for the sole reason that the applicant is a small user of electricity.

6. The company shall not furnish electricity for power purposes to any firm, person or corporation whose sole object or purpose in receiving such electricity is to resell the same at a profit to itself and at a rate higher than the same could be furnished by the company directly to customers.

7. The rights and privileges hereby granted and consented to shall be exercised only by the Connecticut River Transmission Company, and in case of a sale, transfer, assignment or lease of the same by the company without first obtaining an order adopted by the board of selectmen, or if at any time the control of said company passes directly or indirectly into the hands of, or if the company acquires directly or indirectly the control of, a competing company, then all the rights and privileges hereby or hereafter granted to said company shall be thereby forfeited, and the town of Clinton and its servants and agents shall have the right and authority, at the expense of the company, to remove all its poles, wires, structures and other appliances then in, under, upon, over or across the public streets or highways, and to put such

portions of the streets in repair similar to the adjoining parts of the streets.

8. The company shall at all times indemnify and save harmless the town of Clinton from any cost, charge, liability or expense which it may incur or to which it may become liable by reason of the privileges herein granted.

9. The locations granted on West Boylston Road, Grove, Nashua, Chestnut, Oak, Acorn and Chace streets are all subject to the further restrictions that the company shall place its wires underground at such time as the Clinton Gas Light Company, its successors and assigns, shall, on the same streets, place its wires underground, and the work of both companies shall be done simultaneously.

10. That during all or any part of the period these rights are in force, and provided that the town of Clinton establishes or controls a municipal lighting plant, the company shall, upon the request of the board of selectmen, at any time deliver to the town of Clinton, at the substation of the company on Fitch Road, electric energy of sufficient and reasonable force, as the board of selectmen may designate.

Said electric energy shall be delivered in such amount, not to exceed 800 horse power of maximum demand, as the town of Clinton may desire to be used for any or all purposes within said town of Clinton, and at a rate or price per kilowatt hour not to exceed the lowest price given by the company to any other municipality in the Commonwealth to whom the company shall furnish electric energy; with further provision that if at any time the customary price for electric lighting or power in similar hours and methods of use shall decrease, then said price per kilowatt hour shall be decreased in like proportion.

11. The consent, rights, privileges or permissions hereby granted shall expire twenty-eight years from the date of this franchise.

12. The rights and privileges herein granted are upon the further condition that the company shall comply with all the laws of the Commonwealth, by-laws of the town of Clinton and such further regulations as the board of selectmen, with the approval of the Massachusetts Gas and Electric Light Commissioners, may pass from time to time.

13. Any failure to comply with any condition of the franchise shall be remedied by the company within a reasonable time after proper notice thereof; and in the event of a wilful and persistent refusal the company shall forfeit all right hereunder.

14. Before delivering electric energy under this franchise the company shall file with the board of selectmen a bond in the sum of \$5,000, in such form and with such surety or sureties as is approved by the board of selectmen, and given for the purpose of indemnifying and saving forever harmless the town of Clinton from all loss, cost, expense or damage which it may pay, suffer or incur by reason of any of the acts and doings of the company.

15. This consent and permit shall not be construed as any limitation upon the right of the board of selectmen from time to time, or any other board vested with like authority in the town of Clinton, to grant rights, privileges or authority similar to or different from those herein set forth, and in the same streets or public places and to other persons or corporations.

16. A formal acceptance and agreement to abide by the conditions of this franchise shall be filed by the company with the town clerk within thirty days of the date thereof.

After due notice the Board heard all parties interested, as required by law, all the hearings being held in Clinton. The Transmission company and the Gas company were respectively represented by counsel, and the town of Clinton by its solicitor.

The character and purpose of the Transmission company has been considered by the Board in connection with two prior appeals, the first in Fitchburg and the second in Worcester. In its decisions the Board also discussed at some length the general principles which should govern such cases. Many of the facts and principles so considered and discussed are common to this appeal as well, and need be repeated here only so far as may seem necessary to explain the Board's conclusions.

The Transmission company was organized under the general laws of Massachusetts. It has constructed a high-tension transmission line from the New Hampshire boundary to Gardner, Fitchburg, Clinton, Marlborough and Worcester. It is selling electricity to the electric light companies in Gardner, Fitchburg and Marlborough, and to a few other large users of power in the places named. This electricity for the most part is generated by the Connecticut River at the South Vernon dam, and this dam and generating plant are controlled by the same interests controlling the Transmission company. The company supplies either primary or secondary power, the amount of the former being that which may be obtained from the stream steadily throughout the year, and the latter that which may be obtained in excess of such minimum amount. Obviously this secondary power must be supplemented by power otherwise generated, either by the company or its customers, wherever it is supplied and continuous power is desired. The company has recently

acquired an additional source of such supplementary power in its contract for the output of the hydro-electric plant installed by the Metropolitan Water and Sewerage Board at the Wachusett dam in Clinton.

The company's main transmission line passes through the westerly part of Clinton on its way to Worcester. At this point a substation has been erected in which the current is transformed from 66,000 to 13,000 volts. This reduced current is carried through Clinton on the locations granted in the order appealed from to the Lancaster Mills, and thence on to Berlin, where it connects with a transmission line of the Marlborough Electric Company. A connection is made on this line at a point between the substation and the Lancaster Mills with the hydro-electric plant at the Wachusett dam. The Transmission company has but one customer in Clinton, namely, the Lancaster Mills, to which electricity is supplied for mechanical and manufacturing purposes.

The Clinton Gas Light Company has been engaged in making and selling gas in Clinton since 1854, in which year it was incorporated for that purpose by special legislative act. In 1887 it undertook the supply of electricity for light and power in the same territory, having been duly authorized by this Board so to do: Electricity is furnished by the company, however, chiefly for public street lights and private lighting. Its power business has been so far very small. On June 30, 1911, it supplied but 26 motors, with an aggregate capacity of 111 kilowatts. Without undertaking to fully endorse its power rates, it is perhaps fair to say, inasmuch as there was some criticism of them at the hearings, that under its schedule a power customer making a substantial use of a motor of a size reasonably suited to his needs is entitled to a price not necessarily excessive as compared with the prices offered by other electric light companies of similar size.

No objection was made by the Gas company to the erection of the Transmission company's line through Clinton on the location granted by the selectmen, and counsel for the town suggested that the order of location should be affirmed as originally granted. The only issue between the two companies which

developed at the hearings was as to what limitations should be imposed upon the distribution and sale of electricity for power by the Transmission company. The town through its counsel urged that the Transmission company should not be restricted to the supply of large power users, and that it should not be permitted to sell electricity to the Gas company.

In the original charter of the Transmission company its purpose was declared to be "generating, manufacturing, storing, transmitting, purchasing and selling electricity for furnishing power or heat, and for the erection and maintenance of poles, lines, conduits and wires for the transmission of electricity for the foregoing purposes, and in general carrying on the business of furnishing electricity for power or heat."

After the decision of the selectmen above set forth, and before the hearing on the appeal, this corporation, by a unanimous vote of its stockholders, pursuant to the provisions of section 47 of chapter 110 of the Revised Laws, changed the business for the transaction of which it was incorporated so that its purpose reads as follows: "For the purpose of generating, manufacturing, storing, transmitting, furnishing, purchasing and selling electricity for mechanical, manufacturing, railroad, railway and heating purposes, and for the use of municipalities lawfully engaged under the laws of this Commonwealth in the business of furnishing electricity for light, heat or power, and for the erection and maintenance of poles, lines, conduits and wires for the transmission of electricity for the foregoing purposes." Counsel for the town claimed that, in view of the purpose of the company as expressed both in its original and amended charter, it was not "a company incorporated or authorized to distribute and sell electricity exclusively for power," and that, in consequence, the provisions of chapter 617 of the Acts of 1908 do not apply to it.

This last contention is of considerable importance. If it be sustained, then this appeal is governed solely by the provisions of sections 26 and 27 of chapter 121 of the Revised Laws. The Board in considering these provisions has expressed in previous decisions doubt not only of the authority of selectmen under section 26, in consenting to the entry of a new company

into a territory already served, to impose any restrictions upon the character and extent of the business of such new company, but also, in case of appeal under section 27, of the authority of this Board to modify or in any way restrict the order upon which the appeal is based. It was because of this doubt, and the belief that the problem with respect to the entry of a company engaged in the supply of electricity for purposes other than for light into territory already supplied by an electric light company might differ from the entry of a second electric light company into such territory, that chapter 617 of the Acts of 1908 was enacted by the Legislature.

The town's contention, therefore, calls for a construction of the 1908 act, and especially of the words "exclusively for power," for it is obvious that the Transmission company may, under its original charter, transmit and sell electricity for "heat," and under its amended charter to municipal light plants for distribution and sale by them for lighting purposes as well as for heat or power. It is, in fact, supplying electricity to one customer at least whose chief use may be properly described as "heat" and to several electric light companies for resale by them for all purposes for which they may lawfully supply electricity.

The Legislature has never defined the word "power," so often used in the statutes relating to the manufacture, distribution and sale of electricity. It did, however, provide in 1895 (chapter 420), by an act relative to the "sale of electricity for heating and cooking," that a person or corporation "lawfully engaged in the business of transmitting electricity for lighting or power through wires legally located on poles over, or in conduits under, the streets and highways of this Commonwealth, may sell such electricity for operating, heating, cooking and kindred apparatus and motors." This act is now section 24 of chapter 121 of the Revised Laws. By virtue of its provisions an electric light company may sell its electricity for the purposes named as well as for light, and a power company may sell its electricity for the purposes named as well as for power. While this does not, perhaps, offer any definition of what is meant by "power," it does indicate that the distinction between an electric light

and an electric power company, as these terms are used in the statutes, is that the first is and the second is not engaged in selling electricity for light. Furthermore, in certain special charters granted to corporations designated as power companies the Legislature has indicated a purpose to observe this distinction, but with the addition that such companies have been expressly authorized to furnish electricity to municipal plants for resale for lighting as well as for heating and power purposes (Acts of 1895, chapter 309; 1903, chapter 350; 1904, chapter 340; 1908, chapter 580; 1909, chapter 152). At any rate, it seems clear that in this instance by the phrase "electricity exclusively for power" the Legislature did not intend to describe a use of electricity confined to the operation of motors, but rather its use for mechanical and manufacturing purposes generally. This construction of the phrase would include in its scope applications of electrical energy more aptly designated by the word "heat" than "power." It may also be fairly claimed that the phrase includes the supply of electricity in bulk to local distributors substantially as it would be received by them from their own generators.

This broader significance of the term "power" is in keeping with recent developments in the industry. Substantially all of the so-called "power" companies throughout the country are organized for the purpose, and actually engaged in the business, of transmitting and selling electricity for the uses just described. In England, in the 1908 London Electric Supply Act it is expressly provided that in the construction of that act "'power purposes' shall include all purposes for which electrical energy may be applied other than for use either directly or indirectly for lighting." While the common practice of electric light companies has been to use the word "power" in the classification of its business, both with respect to service and price, as applying to the supply of motors merely, yet it is significant that they have created but two classes of customers, namely, for "light" or "power," and in the rapid and varied extension of the application of electrical energy it is evident that these terms are becoming inapt and inadequate. For instance, the largest electric light company operating in this State has found it necessary

in its rate schedule to define "power" as "general motor service, cooking, heating, electroplating, charging storage batteries and similar service, but not including the running of dynamos for electric lighting purposes." In fact, in mechanical propositions the terms "power," "force" and "energy" are often used indiscriminately to express the same idea.

In view of all these considerations the Board, while recognizing that the question is not free from doubt, has reached the conclusion that the Transmission company is incorporated or authorized to distribute and sell electricity exclusively for "power" within the meaning of chapter 617 of the Acts of 1908, and, therefore, that in consenting to the erection and maintenance of its wires over the public streets of Clinton the Board may "affirm, amend, alter or add to the terms, limitations and restrictions" imposed by the selectmen in their decision from which this appeal is taken. It should, however, be remembered, as already pointed out in previous decisions, that the authority of the Board is confined to the question of the original entry of the Transmission company into Clinton. No authority is given to the Board over street locations which may hereafter be granted for extending the company's lines. Consequently, if this order is affirmed the right of the Transmission company to engage generally in the sale of electricity in Clinton for the purposes named in its charter is concluded so far as this Board is concerned, subject only to such terms, limitations and restrictions as may be imposed in the order affirmed.

It requires no argument to convince the Board of the desirability of making cheap power available to communities such as Clinton. Its views upon this question have been for some years a matter of public record. It does not, however, necessarily follow that the general public interest is altogether co-ordinate with or entirely dependent upon the interests of individual power users as such, whether large or small, or will necessarily be promoted by a destructive competition between these two companies for the power business of Clinton. At the same time, any purpose to supply large as distinguished from small users is to be tolerated only during such time as may be necessary to establish the public character of the business which the Trans-

mission company is undertaking, and properly to adjust the relations between it and the local agencies for the distribution of electricity.

The distribution of electricity through the public streets, and its sale for lighting purposes, has been recognized as a public service for more than twenty years. This conception of the character of the business has not changed even though electricity so distributed has come to be applied to other important uses. For the same period it has been the established legislative policy of the Commonwealth that, so long as such an agency for the distribution of electricity in any given territory is adequately and properly performing its public duty, the public interest is better served by public supervision and regulation than by competition. The advent of the Transmission company into communities already supplied, for the purpose of selling electricity primarily to large consumers for manufacturing and mechanical uses, and to a considerable extent as "secondary power," has developed a novel and important phase of the problem with which the Board in administering the legislative policy previously described has already had to deal. In each instance which has been brought to the attention of the Board the local authorities, as in this case, have attempted to preserve competitive relations between the new company and the one already established, but have hesitated to compel it, as a condition of admission, to observe the duties and obligations of a public servant, to serve all with adequate facilities without discrimination and for no more than a reasonable compensation, since such a requirement, being obviously not included in the company's purpose, might discourage or wholly prevent the entry of the new company into the field for any purpose whatever. Anything short of an insistence on this condition must, however, inevitably fail to give the entire community the advantage of two sources from which electricity for mechanical and manufacturing purposes may be purchased. On the other hand, an insistence on this condition will probably ultimately result in no greater advantage to the community than its supply by one public-service agency properly regulated and supervised.

To put the matter more concretely, the Transmission company

came into Clinton to reach the Lancaster Mills and the Marlborough Electric Company at the Berlin line. Without these objectives it would never have sought admission to Clinton. Unless compelled by law, any sale of electricity by it to small power users will be casual and incidental merely to its primary purpose. If compelled by law to supply any one customer, there is no sound reason why it should not be required to supply all who may desire its service, and to extend its lines so far as may be reasonably necessary for this purpose. In that event, for reasons fully discussed in the Board's prior decisions, there is at least doubt whether it can charge much if any less than the prices at which the Gas company can afford to sell electricity to small users of power. If, however, the Transmission company should serve all who might require a supply of electricity from it, and should sell electricity for all purposes other than light, at prices less than charged by the Gas company, the numerically few users of power might benefit, but the numerous users of electricity for light, including the community itself, as the most important consumer of all, would gain no advantage. In fact, inasmuch as experience has developed that low prices for electricity for light are dependent upon the extent and diversity of the use of electricity for other purposes, it seems fair to conclude that any attempt to compel these two companies to observe competitive relations may not result in any advantage to small users of power, and if it does, then only at a corresponding disadvantage to the community as a whole.

On the other hand, the Board has for some time been of the opinion that the public interest in the distribution of electricity by means of the public streets is not to be measured by the use to which electricity is put after its delivery to the customer to whom it is sold. If cheap power is to be made available to a community, it should be made available to all for any use, and not confined to a few for a special use in which the community is at best but indirectly interested. If it is to be made available to all, it must be through some common public-service agency. It is for this reason that the Board believes that the Transmission company should not be excluded from selling to the Gas company, but rather should be free to do so and the latter com-

pany should be willing to buy if thereby it can obtain its electricity cheaper than it can generate the same. Indeed, were it not for certain practical difficulties growing out of the capacity of the Gas company's plant as compared with the requirements of the one customer whom the Transmission company is serving, and for the further fact that the line in question also supplies the Marlborough company, an arrangement similar to that in Fitchburg, whereby the local company became the distributing agency for the Transmission company, might be desirable. But for the time being, at least, an arrangement similar to that followed in Worcester is, in the judgment of the Board, sufficient. Under it the Transmission company may supply customers whose requirements are too great to make it profitable for the Gas company, with its present plant and business, to undertake their supply, but with provision for future readjustments of the relative sphere of activity of the two companies whenever the public interest so demands.

The provision in the selectmen's decision, by which the rights granted by them are to terminate at the end of twenty-eight years, is a distinct departure from the legislative policy and practice of many years, which has been to grant indeterminate revocable franchises in cases similar to the one under consideration. The only advantage of the provision in question from any standpoint is that at the expiration of the term a certain measure of control may revert to the selectmen. If this consideration was thought to be of importance, it is difficult to understand why so long a period was named. At any rate, without undertaking a full discussion of the important question raised, and until the Legislature has declared a different policy with respect to the matter, the Board believes that such a provision is inexpedient, and that its effect, if employed, would be to weaken the public control of the situation, and to discourage rather than encourage the highest development of the properties involved and the lowest charges for their service.

For the foregoing reasons the Board adopted the following:—

Whereas, by a certain resolution adopted on Aug. 31, 1909, the selectmen of the town of Clinton granted their consent to the Con-

necticut River Transmission Company to lay, erect, maintain and use over or under the streets, lanes and highways of said town wires for the transmission of electricity, subject to certain terms, limitations, restrictions and conditions in said resolution set forth; and

Whereas, the Clinton Gas Light Company was aggrieved by the decision of said selectmen, and duly appealed therefrom to the Board of Gas and Electric Light Commissioners, as provided by law; and

Whereas, the Board of Gas and Electric Light Commissioners gave due notice of said appeal and heard all parties interested, as required by law:—

Now, therefore, the Board of Gas and Electric Light Commissioners hereby grants its consent to the Connecticut River Transmission Company to lay, erect, maintain and use over or under the streets, lanes and highways of said town of Clinton wires for the transmission of electricity for power, subject to the terms, limitations and restrictions set forth in said resolution of the selectmen of said town hereinbefore referred to, so affirmed, amended, altered or added to as to read as hereinafter set forth, and as the Board of Gas and Electric Light Commissioners adjudges that the public interest requires, viz.:—

1. The company may, subject to the terms, limitations and restrictions herein expressed, erect, maintain and use poles and string wires over, under, along and across public highways in accordance with the locations granted therefor in the resolution of the selectmen hereinbefore mentioned. But the company shall not lay, erect, maintain or use wires for the transmission of electricity over or under any other streets, lanes and highways of said town of Clinton without the consent in writing of the Board of Gas and Electric Light Commissioners first having been obtained thereto.

2. The locations of all poles, the kind of poles, and the construction of wires and cables shall be as directed and approved by the board of selectmen.

3. So far as feasible, and if suitable arrangements can be made, the company and the Clinton Gas Light Company may use the same poles for the carrying of wires on the highways where pole locations are granted, and permission is hereby granted to replace the present poles of the Clinton Gas Light Company with suitable poles for carrying the electric circuits of both companies.

4. The wires of the company shall be strung not less than 20 feet above the level of the public highway, and such further height as the board of selectmen may require.

5. The voltage used on the wires of the company shall not exceed 14,000 volts under normal working conditions.

6. All wires strung by the company from the Barry property to the point on Nashua Street where said wires pass along or in front of the property of the Lancaster Mills shall be placed in suitable insulated

cables of lead, or such other material as the selectmen shall order, within four months from the date hereof.

7. The company may supply electricity to the Clinton Gas Light Company, electric railroads and railways, but shall not, directly, or indirectly, supply electricity to any other customer whose motors and apparatus connected for use shall be of an aggregate rated capacity of less than 300 electrical horsepower, and whose annual consumption shall be less than 450,000 horse-power hours; and all sales of electricity and all contracts therefor made by said company, except to and with the Clinton Gas Light Company, shall be upon the express condition that no purchaser thereof shall, directly or indirectly, resell the same or any part thereof; but the terms, limitations and restrictions in this paragraph expressed may, at the written request of said Transmission company, or upon the complaint in writing of at least ten users of power in Clinton, from time to time be amended, altered or added to by the Board of Gas and Electric Light Commissioners.

8. The rights and privileges herein granted shall be exercised only by the Connecticut River Transmission Company, and in case of a sale, transfer, assignment or lease of the same by the company without the approval of the selectmen, or if at any time the control of the said company passes, directly or indirectly, into the hands of, or if the company acquires directly or indirectly the control of, a competing company, then all the rights and privileges hereby or hereafter granted to said company shall be thereby forfeited, and the town and its servants and agents shall have the right and authority, at the expense of the said company, to remove all of its poles, wires and other property then in, over or upon the public streets, lanes and highways, and to put such portions of the streets in repair similar to the adjoining parts of the streets.

9. The company shall at all times indemnify and save harmless the town of Clinton from any cost, charge, liability or expense which it may incur or to which it may become liable by reason of the privileges herein granted.

10. The company shall place its wires underground on West Boylston Road, Grove, Nashua, Chestnut, Oak, Acorn and Chace streets, at such time as the Clinton Gas Light Company, its successors and assigns, shall, on the same street, place its wires underground, and the work of both companies shall be done simultaneously.

11. If the town of Clinton shall at any time acquire a municipal lighting plant, the company shall, upon the request of the selectmen or municipal light board of the town of Clinton, deliver to said town, at the substation of the company on Fitch Road, electric energy of sufficient and reasonable force as the selectmen may designate. Said electric energy shall be delivered in such amount, not to exceed 800 horse power of maximum demand, as the town of Clinton may desire,

to be used for any or all purposes within said town of Clinton, and at a rate or price per kilowatt hour not to exceed the lowest price given by the company to any other municipality in the Commonwealth to whom the company shall furnish electric energy, with further provision that if at any time the customary price for electric lighting or power in similar hours and methods of use shall decrease, then said price per kilowatt hour shall be decreased in like proportion.

12. The rights and privileges herein granted are upon the further condition that the company shall comply with all the laws of the Commonwealth, by-laws of the town of Clinton, and such further regulations as the selectmen, with the approval of the Massachusetts Gas and Electric Light Commissioners, may pass from time to time.

13. Any failure to comply with the terms of this order shall be remedied by the company within a reasonable time after notice thereof; and in addition to the remedies provided by law, in the event of a willful and persistent refusal so to do, it shall forfeit all rights hereunder.

14. Before delivering electric energy under this franchise the company shall file with the selectmen a bond in the sum of \$5,000, in such form and with such surety or sureties as may be approved by the selectmen, and given for the purpose of indemnifying and saving forever harmless the town of Clinton from all loss, cost, expense or damage which it may pay, suffer or incur by reason of any of the acts and doings of the company.

15. This consent and permit shall not be construed as any limitation upon the right of the selectmen from time to time, or any other board vested with like authority in the town of Clinton, to grant rights, privileges or authority similar to or different from those herein set forth, and in the same streets, or public places, and to other persons or corporations.

16. The authority granted by this order shall be void and of no effect unless a formal acceptance and an agreement to abide by the terms and conditions of this order is filed by the company with the town clerk within thirty days of the passage thereof. (December 8.)

Consolidations.

GREENFIELD, SHELburnE FALLS AND COLRAIN CONSOLIDATION.

These were the joint applications of the Greenfield Electric Light and Power Company and Shelburne Falls Electric Light and Power Company and of the Greenfield Electric Light and Power Company and Colrain Electric Light and Power Company, respectively, for the determinations required by chapter 529 of the Acts of 1908 relative to the consolidation of the

Shelburne Falls and Colrain companies with the Greenfield company under the name in each instance of "Greenfield Electric Light and Power Company."

After due notice a public hearing, as required by law, was held, both applications being heard at the same time.

Accompanying each application was a copy of an agreement to consolidate the two companies which were parties thereto, together with certified transcripts from the records of each company, from which it appeared that the terms of both consolidations had been approved at meetings called for the purpose by votes of more than two-thirds in interest of the respective contracting parties, in each instance adopted within less than four months prior to the filing of said applications.

The three companies in question were organized under the laws of this Commonwealth for the purpose of making and selling electricity for light, heat and power, and were actually engaged in that business. The Greenfield company had its lines and was supplying electricity in Greenfield, Deerfield, Northfield and Bernardston. The Shelburne Falls Company had its lines and was supplying electricity in Shelburne and Buckland, the former a municipality contiguous to Greenfield. The Colrain company had its lines and was supplying electricity in Colrain, a municipality contiguous to Greenfield.

The Shelburne Falls company was duly organized in 1909, and in 1910 acquired the property and business of a partnership theretofore engaged in the supply of electricity under the same name. For this purpose it was duly authorized to issue capital stock to the amount of \$45,000. This stock was outstanding at the date of the decision, and on April 30, 1911, it had a plant with a book value of \$66,401.95, and other assets of a book value of \$5,891.51, and owed debts amounting to \$26,448.36. It had paid no dividends. The Colrain company was duly organized in 1908, and acquired the property and business of a partnership theretofore engaged in the supply of electricity under the name of "Colrain Electric Light Company." For this purpose it was duly authorized to issue capital stock to the amount of \$2,500. This stock was outstanding at the date of the decision, and on April 30, 1911, it had a plant with a book

value of \$2,710.58, and other assets of a book value of \$568.85, and owed debts amounting to \$1,073.76. It had paid no dividends. Subsequent to June 20, 1910, the Shelburne Falls and Colrain companies passed into the hands of the interests owning or controlling the Greenfield company. With this change of ownership the two former companies ceased to make electricity, buying all of their electricity from the Greenfield company. The prices for electricity which prevailed in Greenfield were put in force by the other two companies, and for all practical purposes the three companies were operated and managed as integral parts of one system.

By the terms of the agreement to consolidate, the Shelburne Falls and the Colrain companies, respectively, were to convey and transfer to the Greenfield company all their "franchises, locations, moneys and other property, real and personal," used in their business of generating and distributing electricity, and the Greenfield company was to assume and pay all of their debts and lawful liabilities, and to issue and exchange, share for share, at par, 475 shares of its capital stock, respectively, for the outstanding 450 shares of the capital stock of the Shelburne Falls company and the outstanding 25 shares of the capital stock of the Colrain company. When this exchange had been effected the certificates of the stock of the Shelburne Falls and Colrain companies were to be surrendered and cancelled, and were not to be reissued.

Under this arrangement the aggregate amount of the capital stock and the aggregate amount of the debt of the three companies will not be increased by reason of the consolidation. The advantage to the public by this extension of the territory of the Greenfield company and its absorption of these two other companies, which must remain relatively weak and inefficient if operated independently, seemed to be too obvious to require extended comment by the Board. By an order simultaneously adopted the Greenfield company was authorized to issue 475 shares of new capital stock for the purpose of effecting these consolidations, and the Board also found that the facilities for furnishing and distributing light, heat and power would not be diminished by reason thereof.

The following was therefore adopted:—

In the matter of the applications, first of the Greenfield Electric Light and Power Company and Shelburne Falls Electric Light and Power Company, and second of the Greenfield Electric Light and Power Company and Colrain Electric Light and Power Company, for the determinations relative to their respective consolidations under the name of the "Greenfield Electric Light and Power Company," required by the provisions of chapter 529 of the Acts of 1908:—

The Board of Gas and Electric Light Commissioners, after notice and a public hearing, and upon due consideration thereof, hereby determines that the facilities for furnishing and distributing light, heat and power will not by reason of said consolidations be diminished; and that said consolidations and the terms thereof, as set forth in said applications and in the agreements thereto annexed, are consistent with the public interest. (July 14.)

BEVERLY AND DANVERS CONSOLIDATION.

This was a joint application by the Beverly Gas and Electric Company and the Danvers Gas Light Company for the determinations relative to their consolidation under the name of "Beverly Gas and Electric Company," required by the provisions of chapter 529 of the Acts of 1908, as amended by chapter 816 of the Acts of 1909.

After due notice a public hearing, as required by law, was held on this application. Representatives of the town of Danvers were present and expressed their approval, provided the consolidation did not affect or interfere with the business of their municipal electric light plant.

Accompanying the application was an agreement of the two companies to consolidate, with certified transcripts from the records of both companies, from which it appeared that the terms of the consolidation had been approved at meetings called for the purpose by votes of more than two-thirds in interest of each of the contracting parties, adopted within less than four months prior to the filing of said application.

The Beverly company is engaged in making and selling gas in Beverly. It was also duly authorized in 1888 to engage in the business of supplying electricity in Beverly, and this original authority having been extended by the Legislature to Wenham,

Hamilton and Topsfield, it is now supplying electricity in these towns as well as in Beverly. In 1889 it was duly authorized to engage in the business of selling electricity in the town of Danvers, but has never exercised such authority. The town had in the same year established a municipal plant, and this action was legalized by the Legislature in 1891. While in case of consolidation the Beverly company will acquire whatever rights the Danvers company now has in view of these facts, yet it will not gain any new or greater rights as against the Danvers municipal plant, and before it can engage in the electricity supply business in Danvers must in any event obtain from the selectmen locations for its lines on the public streets.

The Danvers company was engaged in selling gas only in Danvers, a municipality contiguous to Beverly. It was organized under the general law in 1861, with an authorized capital of \$20,000, for the purpose of "making and selling gas for light in the town of Danvers." In 1909 its capital was duly increased to \$30,000. On June 1, 1911, it owed \$7,433.06, and it had a plant with a book value of \$49,328.15, and other assets of a book value of \$2,348.88. Since the company began making returns to the Board, in 1885, it had paid dividends in but five of the years prior to 1906. In 1906 it paid a dividend of 3 per cent., in the next three years 6 per cent. and in the last two years $6\frac{1}{2}$ per cent. Since 1903 the company was owned or controlled by the same interests controlling the Beverly company. During the year ending June 30, 1910, it sold 7,068,300 cubic feet of gas, for which it charged a maximum net price of \$1.70 per thousand. In 1906 the mains of the two companies were connected at the Danvers line, and thereafter the Danvers company purchased all of its gas of the Beverly company.

By the terms of the agreement to consolidate, the Danvers company was to convey to the Beverly company "all its franchises, locations, lands, buildings, equipment, moneys, rights, easements, choses in action and other property of whatever nature," and the Beverly company was to assume and pay all lawful liabilities and obligations of the Danvers company, and to issue and exchange 300 shares, of the par value of \$100 each, of the former company for the 600 outstanding shares, of the

par value of \$50 each, of the latter company. When this exchange of stock has been effected, the certificates for the shares of the stock of the Danvers company are to be surrendered and cancelled, and are not to be reissued. By an order simultaneously adopted the Beverly company was authorized to issue 300 shares of new capital stock for the purpose of effecting the consolidation. Under this arrangement the aggregate amount of the capital stock and the aggregate amount of the debt of the two companies will not be increased by reason of the consolidation.

As has been previously stated, the two companies for some years past had been physically connected, and for all practical purposes operated as one plant. It appeared at the hearing that for some time past there had been complaint of the price charged by the Danvers company for the gas which it supplied. It was stated, however, that if the consolidation were approved the price of gas in Danvers would be reduced immediately from \$1.70 to \$1.40 net per thousand cubic feet. Even at this price the substantial advantage of the consolidation to consumers of gas in Danvers is obvious. But while the company undertook to justify a difference in price between Beverly and Danvers, the Board was not satisfied that any sufficient reason existed for a permanent difference in price as between the two municipalities when supplied by the same company, and that any difference in price should not be a permanent arrangement, but should disappear as the causes upon which it is based are eliminated and the benefits to be derived by the Beverly company from the increase in its business are more fully realized. The Board further found that consolidation will bring no disadvantage to the territory already supplied by the Beverly company, and that the facilities for furnishing and distributing light, heat and power will not be diminished by reason of such consolidation.

The following was therefore adopted:—

In the matter of the application of the Beverly Gas and Electric Company and the Danvers Gas Light Company for the determinations relative to their consolidation under the name of the "Beverly Gas and Electric Company," required by the provisions of chapter 529 of the Acts of 1908, as amended by chapter 316 of the Acts of 1909:—

The Board of Gas and Electric Light Commissioners, after notice and a public hearing, and upon due consideration thereof, hereby determines that the facilities for furnishing and distributing light, heat and power will not by reason of said consolidation be diminished; and that said consolidation and the terms thereof, as set forth in said application and in the agreement thereto annexed, are consistent with the public interest. (September 5.)

Capital Stock and Bonds.

Fifteen applications for approval of issue of stock or bonds have been decided during the year. The par value of securities asked for was \$4,287,100, and the par value of the amount approved was \$2,012,100. In 9 cases the full amount asked for was approved. Three petitions, one by the Leominster Gas Light Company, one by the Leominster Electric Light and Power Company and one by the Ware Electric Company were withdrawn by the petitioners. Only one petition was dismissed.

The following table shows the securities approved by the Board for the several companies applying therefor, giving both the par value of the stock and the issue price thereof, determined as required by law; and in the pages following will be found the several orders and votes of the Board relating thereto.

COMPANY.	CAPITAL STOCK APPROVED.			Bonds approved at Par.	Date.
	Amount at Par.	Issue Price.	Value at Issue Price.		
Beverly Gas and Electric Co.,	\$30,000	- ¹	-	-	Sept. 5
Charlemont Electric Light and Power Co.,	121,600	\$170	\$206,720	-	June 29
Easthampton Gas Co.,	3,000	100	3,000	-	Aug. 4
Gardner Electric Light Co.,	100,000	100	100,000	-	Mar. 8
Greenfield Electric Light and Power Co.,	85,000	100 ¹	85,000	-	July 14
Greenfield Gas Light Co.,	20,000	150	30,000	-	Mar. 28
Lynn Gas and Electric Co.,	175,000	100	175,000	-	Jan. 16
Pittsfield Electric Co.,	35,000	50 ¹	35,000	-	May 18
Plymouth County Gas Light and Power Co.,	180,000	235	423,000	-	Aug. 4
Seakonk Electric Co.,	150,000	135	202,500	-	Dec. 11
Tyngsborough Electric Light Co.,	288,000	100	288,000	\$192,000	Aug. 20
United Electric Light Co.,	5,000	100	5,000	-	Feb. 17
Weymouth Light and Power Co.,	7,500	25 ¹	7,500	-	Aug. 22
Worcester Gas Light Co.,	250,000	200	500,000	-	July 28
	170,000	100	170,000	-	
	200,000	200	400,000	-	

¹ Issued in exchange for capital stock of Danvers Gas Light Company. (See under "Consolidations" for decision.)

² Preferred stock.

³ Par value, \$50.

⁴ Par value, \$25.

PETITIONS OF THE LYNN GAS AND ELECTRIC COMPANY.

These were applications by the Lynn Gas and Electric Company for the approval of an issue of 1,800 shares of new capital stock of the par value of \$180,000, for the purpose of paying the cost of additions to its plant.

It appeared at the hearing that the obligations of the company already incurred on account of additions to plant, and the probable cost of further additions determined upon by the company, would exceed the proceeds of the amount of stock named in the petition. On June 30, 1910, the company completed the purchase of the plant and business of the Marblehead Gas and Electric Light Company, having been duly authorized so to do in accordance with the provisions of chapter 529 of the Acts of the year 1908, and as part payment therefor assumed the payment of the bonds and other indebtedness of the Marblehead company, amounting to \$39,392. The following was therefore adopted:—

On the petitions of the Lynn Gas and Electric Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of additional capital stock, of the par value of \$180,000, for the objects named in said petitions, after public notice and hearing, it being deemed by the Board that said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Lynn Gas and Electric Company, in conformity with all the requirements of law relating thereto, at the price of \$235 per share, as determined by the directors, of 1,800 shares of new capital stock, of the par value of \$100 each, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 120 shares to the payment and cancellation of bonds of the par value of \$10,000 issued by the Marblehead Gas and Electric Light Company, and other indebtedness of said company to the amount of \$18,200, the payment of all said bonds and debt having been assumed by said Lynn company; the proceeds of 540 shares to the payment and cancellation of an equal amount of the other obligations of the Lynn company existing on the thirtieth day of June, 1910, for account of additions to plant; the proceeds of 180 shares to the payment and cancellation of obligations incurred for additions to plant in the town of Marblehead subsequent to said thirtieth day of June, and the proceeds of

960 shares to the payment and cancellation of obligations incurred for other additions to plant made subsequent to said thirtieth day of June.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Lynn Daily News" and the "Lynn Daily Item," newspapers published in the city of Lynn. (January 16.)

PETITION OF THE UNITED ELECTRIC LIGHT COMPANY OF SPRINGFIELD.

This was an application by the United Electric Light Company of Springfield for approval of an issue of 2,500 shares of new capital stock, of the par value of \$100 each, for the purpose of paying the cost of additions to its plant.

On Jan. 14, 1908, this Board approved an issue of new capital stock sufficient to produce the sum of \$126,000, to be applied to the cost of additions made subsequent to Oct. 31, 1907. The expenditures for construction less what had been provided from earnings and charged to depreciation from that date to Sept. 30, 1910, were \$502,205.95. This leaves \$376,205 expended for that purpose in excess of the proceeds of stock previously approved. Other additions determined upon by the company, and for the most part contracted for, will probably cost about \$150,000. The company's promissory notes outstanding on Sept. 30, 1910, amounted to \$397,000. The following was therefore adopted: —

On the petition of the United Electric Light Company of Springfield, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of 2,500 shares of additional capital stock, of the par value of \$100 each, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is —

Ordered, That the Board hereby approves of the issue by the United Electric Light Company of Springfield, in conformity with all the requirements of law relating thereto, at the price of \$200 per share, as

determined by the directors, of 2,500 shares of new capital stock, of the par value of \$100 each; the proceeds of said stock to be applied to the following purposes, and to no other, to wit: the proceeds of 1,875 shares to be applied to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on Sept. 30, 1910, and the proceeds of 625 shares to the payment and cancellation of an equal amount of the obligations of the company incurred on account of additions to plant made subsequent to said thirtieth day of September.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Springfield, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Springfield Daily Republican" and the "Springfield Daily Union," newspapers published in the city of Springfield. (February 17.)

PETITION OF THE GREENFIELD GAS LIGHT COMPANY.

The Greenfield Gas Light Company applied for the approval of an issue of additional capital stock to the amount of 1,000 shares, of the par value of \$50 each, for the purpose of paying obligations already incurred or to be incurred for account of additions to plant. At the hearing that part of the request which related to future additions was waived.

From the statements submitted by the company at the hearing, and the examination of its accounts, it appeared that the total expenditure for additions to plant between Jan. 1, 1907, and Dec. 1, 1910, were slightly in excess of \$155,000. On July 13, 1907, and Dec. 4, 1908, new stock and bonds for account of the cost of this work were approved to the amount of \$121,000, leaving about \$35,000 of the expenditure for which no securities had previously been approved. On Dec. 1, 1910, the company had outstanding promissory notes to the amount of \$61,700. The following was therefore adopted: —

On the petition of the Greenfield Gas Light Company, pursuant to the provisions of section 34 of chapter 109 of the Revised Laws, for the approval of an issue of 700 shares additional capital stock, of the par value of \$50 each, for the purpose named in said petition, after

public notice and hearing, it being deemed by the Board that the amount of stock hereinafter named is reasonably necessary for the purpose for which the same is authorized, it is —

Ordered, That the Board hereby approves of the issue by the Greenfield Gas Light Company, in conformity with all the requirements of law relating thereto, and at the price of \$50 per share, as determined by its directors, of 700 shares of new common capital stock, of the par value of \$50 each; the proceeds of said stock to be applied to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on Dec. 1, 1910, and to no other purpose.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Springfield Daily Republican" and the "Springfield Daily Union," newspapers published in the city of Springfield. (March 28.)

PETITION OF THE GARDNER ELECTRIC LIGHT COMPANY.

This was an application by the Gardner Electric Light Company for the approval of an issue of new capital stock, of the par value of \$105,000, to be composed of 850 shares of preferred stock and 200 shares of common.

The liabilities of the company on Dec. 31, 1910, included capital stock of a par value of \$65,000, bonds for \$13,000 and notes payable for \$83,000. On Nov. 22, 1907, this Board approved an issue of 350 shares of new capital stock at par and of mortgage bonds to the amount of \$65,000, the proceeds to be applied to the payment of a mortgage note of \$20,000, other notes for \$40,000 and the balance to the cost of additions to plant made subsequent to June 30, 1907. The entire amount of stock and \$13,000 only of the bonds so approved had been issued.

Between June 30, 1907, and Dec. 31, 1910, the expenditures for additions to plant were about \$90,500. From the securities issued, \$40,000 were available for account of this expenditure and \$8,000 for account of the ordinary notes payable outstand-

ing on June 30, 1907. The unpaid portions of those notes and of the cost of the plant additions were included in the ordinary promissory notes for \$63,000 outstanding on Dec. 31, 1910. No payment had been made on account of the principal sum of the mortgage note above referred to and outstanding on June 30, 1907. Of the bonds approved on Nov. 22, 1907, \$52,000 par value had never been issued, and the vote authorizing the same had been rescinded and annulled by the stockholders. Further extensions subsequent to Dec. 31, 1909, partially completed but not represented by the promissory notes outstanding on Dec. 31, 1910, will probably cost about \$12,000.

In view of these facts the following was adopted:—

On the petition of the Gardner Electric Light Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of additional capital stock, of the par value of \$105,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Gardner Electric Light Company, in conformity with all the requirements of law relating thereto, of 850 shares of preferred capital stock, at the price of \$100 per share, and of 200 shares of common stock, at the price of \$150 per share, the prices for both classes of stock being so determined by its directors; the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 200 shares of preferred stock to the payment and cancellation of the mortgage note of the company for the principal sum of \$20,000; the proceeds of 130 shares of preferred stock to the payment and cancellation of an equal amount of the company's bonds outstanding on Dec. 31, 1910; the proceeds of 520 shares of preferred and 73 shares of common stock to the payment and cancellation of an equal amount of the obligations of the company represented by its ordinary notes outstanding on Dec. 31, 1910; the proceeds of 52 shares of common stock to the payment of the cost of the extension of the distribution system of the company into Westminster, Hubbardston, Barre and Winchendon, and the proceeds of 75 shares of common stock to the cost of other additions to the company's plant.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further—

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that

the time and place of such sale shall be published in the "Boston Daily Advertiser," the "Worcester Daily Telegram" and the "Gardner News," newspapers published in the cities of Boston and Worcester and the town of Gardner, respectively. (March 8.)

IN RE BONDS GARDNER ELECTRIC LIGHT COMPANY.

Whereas, This Board on Nov. 22, 1907, did approve of an issue by the Gardner Electric Light Company of first mortgage bonds to an amount not exceeding \$65,000 par value, payable in not exceeding twenty years from the date thereof, and bearing interest at a rate not exceeding five per cent. per annum; and

Whereas, Of said bonds so approved bonds to the amount of \$13,000 and no more have been issued by the corporation, and the said Gardner Electric Light Company at a meeting of its stockholders has voted to rescind and annul such portion of the vote authorizing the issue of said bonds as relates to the unissued portion thereof, to wit, the amount of \$52,000 par value; and

Whereas, This Board has this day approved an issue of new capital stock, the proceeds whereof are to be applied in part to the payment and cancellation of that portion of the indebtedness of the company now unpaid to which the proceeds of said bonds to the said amount of \$52,000 were to be applied, it is —

Voted, That the aforesaid approval by this Board, so far as the same relates to the unissued portion of said bonds at par, to wit, of bonds of the par value of \$52,000, is hereby cancelled and annulled. (March 8.)

PETITION OF PITTSFIELD ELECTRIC COMPANY.

This was an application by the Pittsfield Electric Company for the approval of an issue of additional capital stock, of the par value of \$225,000, for account of additions to its plant.

On Nov. 24, 1906, this Board approved an issue of capital stock and bonds of the par value of \$225,000, based upon the condition and requirements of the company on Sept. 30, 1906. It appeared from an examination of the company's affairs that between Sept. 30, 1906, and April 1, 1911, the company expended for additions to plant in excess of those for which se-

curities had been approved about \$189,000, and on the date last named had outstanding promissory notes for \$230,000. It appeared at the hearing that certain additions to the plant, which would probably cost about \$45,000, had been determined upon by the company but had not then been undertaken. Since the hearing and up to March 31, 1911, nearly \$28,000 was expended for account of this work, and that amount is included in the \$189,000 stated above, leaving a further expenditure for that account of about \$17,000. The following was therefore adopted:—

On the petition of the Pittsfield Electric Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of additional capital stock, of the par value of \$225,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the amount of stock hereinafter named is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Pittsfield Electric Company, in conformity with all the requirements of law relating thereto, at the price of \$135 per share, as determined by the directors, of 1,500 shares of new capital stock, of the par value of \$100 each, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 1,400 shares to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on March 31, 1911; the proceeds of 100 shares to the payment and cancellation of an equal amount of obligations of the company incurred for additions to plant made subsequent to March 31, 1911.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further—

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Pittsfield, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Pittsfield Daily Eagle" and the "Pittsfield Evening Journal," newspapers published in the city of Pittsfield. (May 18.)

PETITION OF THE CHARLEMONT ELECTRIC LIGHT AND POWER
COMPANY.

The Charlemont Electric Light and Power Company applied for the approval of an issue of new capital stock, of the par value of \$3,000.

This corporation was organized under the laws of this Commonwealth for the purpose of "engaging in the manufacture of electricity for light, heat and power, to maintain poles, lines, wires and all necessary fixtures for the transmission and sale of electricity for light, heat and power; to purchase lands and water power rights for the purpose of generating electricity, and to acquire all property rights and franchises that may be lawfully acquired for the purpose of manufacturing, distributing and selling electricity for light, heat and power and other purposes; with a capital of five thousand dollars, common stock." Its charter was issued on the ninth day of March, 1911. The company did not own or operate an electric light plant and had never issued any stock. The business of making and selling electricity had been carried on in Charlemont by G. H. Turner, doing business under the name of "G. H. Turner Electric Light Plant," and he was one of the incorporators of the petitioning corporation. The purpose of the proposed issue of stock was to enable the corporation to purchase all of the property of Mr. Turner used in the electric light business, and to continue the business. From the evidence submitted at the hearing it appeared that such property would fairly represent the amount of capital stock hereinafter approved. The following was therefore adopted:—

On the petition of the Charlemont Electric Light and Power Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of new capital stock, of the par value of \$3,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Charlemont Electric Light and Power Company, in conformity with all the requirements of law relating thereto, of 30 shares of new

capital stock, of the par value of \$100 each, the proceeds thereof to be applied to the purchase, free and clear of all encumbrances, of all the plant, rights, privileges and other property of whatever name and nature in use on the ninth day of May, 1911, by G. H. Turner in the business conducted by him under the name of "G. H. Turner Electric Light Plant" in generating, distributing and selling electricity for light, heat or power, or incidental to such in use in the town of Charlemont. (June 29.)

PETITION OF GREENFIELD ELECTRIC LIGHT AND POWER COMPANY.

This was an application by the Greenfield Electric Light and Power Company for the approval of an issue of new capital stock, of the par value of \$175,000, for the purpose of effecting its consolidation with the Shelburne Falls Electric Light and Power Company and the Colrain Electric Light and Power Company, respectively, and of paying for the cost of additions to plant.

By an order adopted simultaneously the Board authorized the consolidation of the Greenfield company with the Shelburne Falls company and with the Colrain company, under agreements which call for the issue and exchange of one share of the capital stock of the Greenfield company for each of the outstanding shares of the capital stocks of the Shelburne Falls and the Colrain companies. From Sept. 30, 1908, to April 30, 1911, the cost of additions to the Greenfield company's plant, less depreciation charges and other credits, were slightly in excess of \$95,000. The company had also under contract on the last-named date certain additions to its generating plant not then completed, the probable cost of which was about \$65,000.

The following was therefore adopted:—

On the petition of the Greenfield Electric Light and Power Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws and chapter 529 of the Acts of 1908, for the approval of additional capital stock of the par value of \$175,000 for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Greenfield Electric Light and Power Company, in conformity with all the requirements of law relating thereto, of 450 shares of new capital stock, of the par value of \$100 each, and of the exchange of the same, share for share, for the entire capital stock of the Shelburne Falls Electric Light and Power Company; of 25 shares of new capital stock, of the par value of \$100 each, and of the exchange of the same, share for share, for the entire capital stock of the Colrain Electric Light and Power Company; and of 1,275 shares of new capital stock, of the par value of \$100 each, at the price of \$100 per share, as determined by its directors, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 950 shares to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on April 30, 1911, and the proceeds of 325 shares to the payment of obligations incurred on account of additions to plant made subsequent to April 30, 1911.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Springfield Daily Republican," and the "Springfield Daily Union," newspapers published in the city of Springfield. (July 14.)

PETITION OF THE WORCESTER GAS LIGHT COMPANY.

This was an application by the Worcester Gas Light Company for the approval of an issue of new capital stock, of the par value of \$200,000, on account of additions to its plant.

On June 26, 1908, this Board approved an issue of new capital stock by this company, the proceeds of which, to the amount of \$60,000, were to be applied toward the cost of additions to plant made subsequent to the thirty-first day of May of that year.

Since that date and prior to Jan. 31, 1911, the expenditures for account of new plant, in addition to the \$60,000 which was to be applied thereto and the depreciation charges, had been about \$255,000. Further additions would probably cost about

\$155,000, including about \$74,000 for completing retort house contract. On Jan. 31, 1911, the company had outstanding promissory notes to the amount of \$315,000. The following was therefore adopted:—

On the petition of the Worcester Gas Light Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of additional capital stock, of the par value of \$200,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is —

Ordered, That the Board hereby approves of the issue by the Worcester Gas Light Company, in conformity with all the requirements of law relating thereto, at the price of \$200 a share, as determined by its directors, of 2,000 shares of new capital stock, of the par value of \$100 each, the proceeds of said stock to be applied to the following purposes, and to no other, to wit: the proceeds of 1,250 shares to the payment and cancellation of an equal amount of the obligations of the company, represented by its promissory notes outstanding on the thirty-first day of January, 1911, and the proceeds of 750 shares in payment of obligations incurred on account of additions to plant made subsequent to said thirty-first day of January.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," a newspaper published in the city of Boston, and in the "Worcester Evening Gazette," the "Worcester Evening Post" and the "Worcester Daily Telegram," newspapers published in the city of Worcester. (July 23.)

PETITION OF THE EASTHAMPTON GAS COMPANY.

The Easthampton Gas Company applied for the approval of an issue of new capital stock, of the par value of \$125,000, on account of additions to its plant. At the hearing the company suggested that this amount might be reduced to \$100,000.

On June 30, 1911, this company had outstanding promissory notes to the amount of \$129,000, of which upwards of \$100,000 appeared to have been issued on account of additions to plant

for which no securities had previously been issued or approved. The following was therefore adopted:—

On the petition of the Easthampton Gas Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of additional capital stock of the par value of \$125,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the amount of stock hereinafter named is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Easthampton Gas Company, in conformity with all the requirements of law relating thereto, at the price of \$100 a share, as determined by its directors, of 1,000 shares of new capital stock, of the par value of \$100 each, the proceeds of said stock to be applied to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on June 30, 1911.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further—

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Evening Transcript," the "Boston Daily Advertiser" and the "Boston Post," newspapers published in the city of Boston. (August 4.)

PETITION OF THE PLYMOUTH COUNTY GAS LIGHT AND POWER COMPANY.

This was an application by the Plymouth County Gas Light and Power Company for the approval (whether by an amendment of the Board's outstanding order of Jan. 17, 1910, or otherwise) of the issue of shares of capital stock and bonds to an aggregate amount (including 200 shares already issued) not exceeding \$1,700,000, for the cost of constructing its gas works, distributing system and other property, and for any other lawful purpose of said company.

This company was organized in 1908 for the purpose of "making, selling and distributing gas for light and for heating, cooking, chemical and mechanical purposes," with an authorized capital of \$100,000. On Jan. 17, 1910, upon an application

for an approval of stock and bonds, the Board approved of the issue by the company of stock and bonds to the amount of \$300,000 in all, for the construction of a gas works in the town of Braintree, and continued the consideration of the application for the approval of such additional amount of stock and bonds as might appear reasonably necessary for the completion of the entire work proposed. Under this approval of the Board only 200 shares of capital stock were issued, and the proceeds thereof were applied to the purchase of land in Braintree, its grading and improvement, a sea wall and foundations for the gas apparatus.

Since this action of the Board, and the issue of the 200 shares above described, the original incorporators had disposed of their interest in the company, and the new owners had revised and considerably modified the plans of the incorporators respecting the extent and method of carrying on the proposed work. They made a contract for the construction and completion of a fully equipped water gas manufacturing plant, with a daily capacity of 800,000 cubic feet and a distribution system in the towns of Braintree, Weymouth, Abington, Whitman and Rockland, with at least 111 miles of street mains and the requisite house connections. The contractor also undertakes, pending the completion of the contract, to solicit customers for the company, with a view to turning over to it in the end a complete plant with a going business. For this the company undertakes to pay the contractor, as the work progresses, in all the sum of \$1,202,898.25, of which \$340,630.07, is for plant, \$459,148.18 for mains, and \$403,120 for services, meters and obtaining customers. The balance of the amount for which the Board's approval was asked was for equipment, incidental expenses during construction and working capital.

From the statements filed with the Board it appeared that the company intended to expend during the current year upon the main gas works construction about one-half their contemplated entire cost, to install a specified amount of street mains, services and meters in the several towns above named, and upon the completion of this work to begin the supply of gas to the public. The needs of the company at the time of the decision would be

fully met by the immediate approval of an amount of stock and bonds sufficient for this purpose, and the case was continued for the approval from time to time of such further amounts as might be found reasonably necessary as the work progresses.

The following was therefore adopted:—

On the petition of the Plymouth County Gas Light and Power Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval (by amendment of the Board's order of Jan. 17, 1910, or otherwise) of an issue of new capital stock of the par value of \$1,020,000, and of bonds to the amount of \$680,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the amount of stock and bonds hereinafter named is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the orders of the Board adopted on Jan. 17, 1910, upon the petition of said company, be hereby amended so as to read as follows, viz.:—

Ordered, That the Board hereby approves of the issue by the Plymouth County Gas Light and Power Company, in conformity with all the requirements of law relating thereto, of 2,880 shares of new capital stock of the par value of \$100 each, and of bonds, at not less than par and accrued interest, to the amount of \$192,000, payable in not exceeding twenty years from the date thereof and bearing interest at a rate not exceeding 5 per cent. per annum, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 2,700 shares of stock and of bonds to the amount of \$180,000 to be applied on account of the construction of gas works in the town of Braintree and a gas distribution system in the towns of Weymouth, Braintree, Abington, Whitman and Rockland, and the proceeds of 180 shares of stock and of bonds to the amount of \$12,000 to be for working capital.

Ordered, That the consideration of said petition be continued for such further approval as may appear reasonably necessary for the completion of the entire work proposed. (August 4.)

PETITION OF THE WEYMOUTH LIGHT AND POWER COMPANY.

This was an application by the Weymouth Light and Power Company for the approval of an issue of new capital stock of the par value of \$210,000 on account of additions to plant.

On Feb. 6, 1903, the Board, upon the petition of this company, approved an issue of 250 shares of the par value of \$25,000 and of first mortgage bonds to the amount of \$50,000. The proceeds of 110 shares of this stock were to be applied to

the cost of installing new steam and electrical equipment at the station, the proceeds of 140 shares to the cancellation of an equal amount of the coupon notes of the company then outstanding, and all the bonds were for the purpose of refunding an equal amount of bonds. At that time the company had capital stock of \$50,000, bonds of \$50,000, coupon notes of \$29,500 and other notes for \$25,000. No part of the stock nor the bonds approved in 1903 had ever been issued, but extensive additions had been made in the company's plant, the expenditure for this purpose during the year ending June 30, 1911, having been upwards of \$80,000. The bonds and all but \$7,000 of the coupon notes had also matured and been paid.

In the opinion of the Board the capital stock already issued, together with the amount approved in the order following, will fairly represent the present plant of the company.

The following was therefore adopted:—

On the petition of the Weymouth Light and Power Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of 2,100 shares of additional capital stock, of the par value of \$210,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the amount of stock hereinafter named is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Weymouth Light and Power Company, in conformity with all the requirements of law relating thereto, at the price of \$100 per share, as determined by the directors, of 1,700 shares of new capital stock, of the par value of \$100 each, the proceeds thereof to be applied to the payment and cancellation of an equal amount of the obligations of the company represented by its promissory notes outstanding on June 30, 1911, and to no other purpose.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further—

Ordered and determined that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," the "Boston Daily Herald" and the "Boston Evening Transcript," newspapers published in the city of Boston.

And whereas, This Board by its order adopted on Feb. 6, 1903, did approve an issue by the said Weymouth Light and Power Company of 250 shares of new capital stock and of bonds to the amount of \$50,000

for the purpose of refunding a like amount of bonds and the payment of certain other obligations of the company then or thereafter accrued; and whereas, it now appears that no part of said stock or bonds has been issued by the company, that said bonds are no longer outstanding against the company and that so much of the said other obligations as are now outstanding is to be paid and extinguished out of the proceeds of new capital stock, the issue whereof has been this day approved by the Board as above set forth; now, therefore, it is —

Ordered and determined, That the order of the Board issued Feb. 6, 1903, approving an issue of additional capital stock and of bonds, is hereby rescinded and annulled. (August 22.)

PETITION OF TYNGSBOROUGH ELECTRIC LIGHT COMPANY.

This was an application by the Tyngsborough Electric Light Company for the approval of an issue of new capital stock, of the par value of \$7,500.

This corporation was organized under the laws of this Commonwealth, with an authorized capital stock of \$3,000, for the purpose of "manufacturing, purchasing or otherwise producing electric light, power and heat for sale; to light and heat and furnish power for public and private properties; and for all other necessary and reasonable purposes for which electric light companies are usually operated; and to purchase, lease, sell or otherwise dispose of real and personal properties reasonably necessary for such purposes." Its charter was issued on Sept. 24, 1909. The company did not own or operate an electric light plant and had never issued any stock. A partnership consisting of A. A. Flint and A. L. Derby, having built a generating plant and distributing system, had been carrying on for a year or more the business of making and selling electricity in the towns of Tyngsborough and Dunstable. The members of this partnership were among the incorporators of the petitioning company. The purpose of the proposed issue of stock was to enable the corporation to purchase all of the property of the above-named partnership used in the electric light business and to continue the business. From the evidence submitted at the hearing it appeared that such property would fairly represent the capital stock asked for.

The authorized capital of the corporation, however, is but \$3,000, and this amount of stock must first be issued so as to

enable the stockholders to vote to increase the stock to the full amount of \$7,500.

The following was adopted by the Board:—

On the petition of the Tyngsborough Electric Light Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of new capital stock of the par value of \$7,500, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Tyngsborough Electric Light Company, in conformity with all the requirements of law relating thereto, at the price of \$25 per share, as determined by its directors, of 300 shares of new capital stock, of the par value of \$25 each, the proceeds of said stock to be applied to the following purposes and to no other, to wit: to the payment and cancellation of all obligations incurred on account of the purchase, free and clear of all encumbrances, of all the rights, privileges and property of whatever name and nature in use by A. A. Flint and A. L. Derby on the first day of May, 1911, in the business conducted by them under the name of the "Tyngsborough Electric Light Company," in generating, distributing and selling electricity for light, heat or power, or incident to such use in the towns of Tyngsborough and Dunstable.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further—

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser," the "Boston Post" and the "Boston Evening Transcript," newspapers published in the city of Boston. (August 29.)

PETITION OF THE BEVERLY GAS AND ELECTRIC COMPANY.

This was an application by the Beverly Gas and Electric Company for the approval of an issue of capital stock, of the par value of \$151,600, for the purpose of effecting its consolidation with the Danvers Gas Light Company, of retiring its special stock and of providing funds for additions to its plant.

By an order adopted simultaneously the Board authorized the consolidation under an agreement which calls for the issue and exchange of 1 share of the capital stock of the Beverly

company for each 2 shares (par \$50) of the outstanding capital stock of the Danvers company. The Beverly company had outstanding 118 shares of special stock issued in 1874, subject to redemption at par at any time after Nov. 15, 1880. It had begun the construction of considerable additions to its electric and gas generating stations, estimated to cost about \$125,000 and \$50,000 respectively, and extensions to its distributing plant estimated to cost about \$15,000.

The following was therefore adopted: —

On the petition of the Beverly Gas and Electric Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, and of chapter 529 of the Acts of 1908, for the approval of an issue of additional capital stock, of the par value of \$151,000, for the objects named in said petition, after public notice and hearing, it being deemed by the Board that the said amount of stock is reasonably necessary for the purpose for which such issue is authorized, it is —

Ordered, That the Board hereby approves of the issue by the Beverly Gas and Electric Company, in conformity with all the requirements of law relative thereto, of 300 shares of new capital stock, of the par value of \$100 each, and of the exchange of the same for the entire capital stock of the Danvers Gas Light Company, upon the basis of 1 share of stock of said Beverly company for 2 shares of the stock of said Danvers company; and of 1,216 shares of new capital stock, of the par value of \$100 each, at the price of \$170 per share, as determined by its directors, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 69 shares to the redemption at par of the 118 shares of special stock now outstanding, and the proceeds of 1,147 shares to the payment of the cost of additions to plant made subsequent to Jan. 1 A. D. 1911, and to no other purpose.

And if any shares shall remain unsubscribed for by the stockholders entitled to take them under the provisions of law relating thereto, it is further —

Ordered and determined by the Board that all such shares shall be offered for sale at some suitable place in the city of Boston, and that notice of the time and place of such sale shall be published in the "Boston Daily Advertiser" and the "Boston Post," newspapers published in the city of Boston, and in the "Beverly Evening Times," a newspaper published in the city of Beverly. (September 5.)

PETITION OF THE SEEKONK ELECTRIC COMPANY.

This was an application by the Seekonk Electric Company for the approval of an issue of new capital stock, of the par value of \$5,000.

This is a corporation organized under the general laws of this Commonwealth on Nov. 3, 1911, with an authorized capital of \$25,000, for the purpose of "manufacturing, producing, transmitting, buying, selling and supplying electricity for use for light, heat and power in the towns of Seekonk and Swansea within said Commonwealth." It was organized by persons interested in the Narragansett Electric Light Company, a Rhode Island corporation. A few customers in Seekonk near the State line had been supplied with electricity furnished by the last-named company. The new corporation proposed to purchase the lines within the town of Seekonk used to reach such customers, to continue to operate the same with electricity purchased of the Rhode Island Company at the State line, and to make a considerable extension of the lines so acquired in the town of Seekonk. The estimated value of the lines in Seekonk was about \$1,000, and estimated cost of the proposed extensions was over \$5,400. The following was therefore adopted:—

On the petition of the Seekonk Electric Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of new capital stock, of the par value of \$5,000, for the objects named in said petition, after notice and hearing, it being deemed by the Board that the amount of stock hereinafter named is reasonably necessary for the purpose for which such issue is authorized, it is—

Ordered, That the Board hereby approves of the issue by the Seekonk Electric Company, in conformity with all the requirements of law relating thereto, of 50 shares of new capital stock, of the par value of \$100 each, the proceeds thereof to be applied to the following purposes and to no other, to wit: the proceeds of 10 shares to the purchase, free and clear of all incumbrance, of the distributing system now within the town of Seekonk and specified in the schedule thereof filed with the Board, and the proceeds of 40 shares to additions to and extensions of the distributing plant so acquired. (December 11.)

PETITION OF HAVERHILL GAS COMPANY.

This is an application by the Haverhill Gas Company for the approval of an issue of new capital stock of the par value of \$900,000, — \$500,000 common and \$400,000 preferred stock, — the proceeds to be used for the acquisition of the property, real and personal, of the Haverhill Gas Light Company and of other new property in connection therewith, and the improvement of the property thus acquired.

Notice of a public hearing on this application was duly given, and at the request of the municipal council the hearing was adjourned to Haverhill. Several sessions of the Board were held there, at which the company, the municipal council and certain citizens were represented by counsel. Evidence was submitted by the company in support of its application, the substance of which is hereinafter stated. From this evidence it appeared that the company intended to apply the proceeds of stock of the par value of \$630,000 to the acquisition of the plant and property of the Haverhill Gas Light Company, and the proceeds of the balance of the stock covered by the application to the cost of reconstructing and adding to said plant. There was also evidence submitted by the company tending to show that the value of the property to be acquired of the old company was \$630,000, and that the new company intended, upon acquiring the plant and property of the old company, to utilize the same in supplying gas to the inhabitants without any interruption in the service or diminution in the facilities for such supply.

When the facts hereinbefore stated had appeared in the evidence submitted by the company, and before cross-examining the company's witnesses or offering any evidence to control or controvert that offered by the company, counsel for the municipal council raised the question that the Haverhill Gas Light Company could not make a valid sale and conveyance of its plant to the Haverhill Gas Company, and that therefore an issue of stock by the latter company could not lawfully be approved for the purpose of acquiring the former's plant. After hearing arguments upon the issue thus raised, the case was continued pending its consideration. On April 6, 1911, the Board made the following ruling: —

The Haverhill Gas Company is applying for the approval of an issue of new capital stock of the par value of \$900,000, the proceeds to be used in acquiring all the tangible property, real and personal, of the Haverhill Gas Light Company, and other property to be added to or for the improvement of the property thus acquired.

The petitioning company, the municipal council and certain residents and customers of the Haverhill Gas Light Company have been severally represented by counsel.

The presentation of the evidence by the petitioner has been interrupted by the suggestion that no part of the proposed capital stock can be lawfully used for the purpose of acquiring the property of the Haverhill Gas Light Company, and that it would be unlawful in any event to issue for such purpose the amount of stock proposed by the petitioner. The legal questions involved have been ably argued. Although the presentation of the evidence of the petitioner was not concluded, the Board understands that all the facts material to a decision of the questions raised have been brought to its attention.

The Haverhill Gas Light Company was organized under a special legislative act and began the supply of gas in Haverhill in 1853. It has ever since continued to supply gas, and is now the only company engaged in the sale of gas in Haverhill. Its capital stock, which was originally \$45,000, was increased in 1871 or 1873 to \$75,000, which is the present par value of the outstanding stock. In July 1899, all of the capital stock was purchased by the Haverhill Gas Securities Company, a corporation organized under the laws of this Commonwealth. The Securities company, having authorized and issued capital stock of \$500,000, proceeded to issue and sell its collateral trust 5 per cent. twenty-year debentures, for the full amount of \$500,000, secured by a deposit of the entire capital stock of the Gas Light company with a trustee, and by a mortgage by the Gas Light company of its plant and property to the same trustee. The property of the Securities company is the equity in the capital stock of the Gas Light company, and the debentures have no other security than that described.

In 1909 Messrs. Stone & Webster of Boston and their associates, having previously had no financial interest whatever in the Securities company, acquired all of its stock and bonds, and in the latter part of that year assumed and have since continued to exercise the active management of the Gas Light company. The stock may not have all been secured in 1909, but either in 1909 or 1910, prior at all events to the bringing of this petition.

In 1900, upon complaint of the mayor of Haverhill, this Board ordered the Haverhill Gas Light Company to reduce its price of gas from \$1 to 80 cents per thousand cubic feet. The company refused to obey this order and brought suit in the United States court to enjoin its enforcement. This case, some time in 1907 or 1908, was referred

to a master, who later, in 1908 or 1909, began hearings upon the issues involved.

While these hearings were pending the municipal council of Haverhill, on Dec. 23, 1909, acting under section 2 of chapter 34 of the Revised Laws, passed the first vote favorable to the acquiring of a municipal gas plant. The officers of the Haverhill Gas Light Company thereupon submitted to the municipal council certain proposals relative to the price and improved service, but conditional upon a settlement of the pending litigation. Modifications of the original offer were subsequently made, first, by the old company; but later, after its organization, by the new company, the petitioner in this case. After a public hearing, and considerable delay for its further consideration, the municipal council passed the franchise and consent already described, and containing, in a modified form, the proposals originally submitted by the Gas Light company. Meantime, a proposition for a second vote in favor of a municipal gas plant, required by section 2 of chapter 34 of the Revised Laws, was offered in the municipal council and laid on the table, where it has ever since remained.

The Haverhill Gas Company, the petitioner, was organized on April 7, 1910, under the provisions of chapter 110 of the Revised Laws, with an authorized capital of \$5,000, for the purpose of "making, selling and distributing gas for lighting, heating, cooking, chemical and mechanical purposes in the city of Haverhill." The original capital was at that time duly subscribed for, to be issued subject to the approval of this Board; and at what purports to be a meeting of the stockholders, on Jan. 7, 1911, it was voted to increase the capital stock to \$900,000. Messrs. Stone & Webster and their associates, who, as has been stated, are the owners of the stock and bonds of the Haverhill Gas Securities Company, are and will be the owners of all the stock of the Haverhill Gas Company.

The municipal council of Haverhill, having under the charter the authority of mayor and aldermen under the general law, passed an order on June 30, 1910, the body of which is as follows:—

Ordered, That subject to all conditions hereinafter set forth as to the time when this franchise and consent shall become effective, and as to the time when any rights or privileges thereunder shall accrue to the Haverhill Gas Company, and subject, further, to all other terms, conditions and restrictions herein provided, the consent of the city of Haverhill and of the municipal council thereof is hereby given to the Haverhill Gas Company, hereinafter called the "company," to lay, erect, maintain and use in and under the streets, lanes and highways of said city, as the same shall from time to time exist, hereinafter called the "streets," gas pipes, mains and appurtenances thereto for the distribution of gas for heat, light, cooking, chemical and mechanical purposes, and to that end for such purposes to dig up and open said streets. The consent of

the city of Haverhill and of the municipal council thereof is hereby further given to the company to maintain, renew, restore, replace and use in, on, over and under the streets such gas pipes, mains and appurtenances thereto as the company has or shall have legally acquired from the Haverhill Gas Light Company, and to that end and for such purposes to dig up and open said streets. The foregoing consents and grants are given for the purposes aforesaid and in accordance with and for the purposes of section 25 of chapter 121 and section 76 of chapter 110 of the Revised Laws. All the foregoing franchises and consents are hereby expressly given the company in consideration of its acceptance of the terms hereof, and of its written contract, hereinafter referred to, and subject to the terms, conditions and restrictions following.

The terms, conditions and restrictions contained therein, which are not quoted, relate to the price of gas to private consumers and to the city of Haverhill, provide for annual payments by the company to the city in possible excess of taxes, so as to produce certain stated amounts, the opening of the public streets, inspection of the company's books and accounts, the capitalization of the company, the termination of the franchise and consent, and the date when it should begin to be operative. This franchise and consent were to become effective as soon as, but not until, certain things were done, provided they were done before Oct. 1, 1910. These things include a formal acceptance of the franchise and consent and the contract to perform all of the terms and conditions thereof, a contract by the Haverhill Gas Light Company of like tenor and effect, a declaration of trust by the Gas Light company for the distribution of \$21,000 among its customers, so as to make the reduction in price relate back to July 1, 1909, and the deposit of \$21,000 under the trust so created. All that was thus required to be done by the Haverhill Gas Company or the Haverhill Gas Light Company before Oct. 1, 1910, was duly and seasonably performed.

When the knowledge of these facts was brought to the attention of this Board, on the assumption that a practical solution of the long pending controversy had been found which was satisfactory to the community immediately concerned, the Board assented to the entry of a final decree in the suit pending in the federal court enjoining the enforcement of the order adopted in 1900.

Some of the facts which have been stated may not be material to a decision of the issue immediately before the Board, but they are stated because they have been frequently referred to in the discussions, and in order that the bearing of those which are material may not be misunderstood.

The municipal council was within its undoubted rights when it took the first vote in favor of a municipal gas plant and looking to the probable acquisition of the property of the Gas Light company, and thereby incidentally ending the pending ten-year controversy with that

company. In respect to this matter, it owed no duty to the courts or to this Board, and in considering the expediency of the proposed municipalization, the amount which the city might have to pay for the company's property, the price which the municipal plant when established might have to charge for gas in comparison with the price which the company in operation was charging, or might in future charge, for its gas, were all matters of vital importance and material. The municipal council also acted within its undoubted rights in granting its consent to a new company to dig up and open the streets for the purpose of laying gas pipes therein, and this grant, no appeal having been made to this Board by any party aggrieved, is final and conclusive.

The foregoing facts, together with the testimony of the petitioner as to the value of the property of the Haverhill Gas Light Company, having appeared, it was contended on behalf of the municipal council that the petitioner, the Haverhill Gas Company, cannot lawfully apply the proceeds of new capital stock to the purchase of the property of the Haverhill Gas Light Company for the reason that both the statute (Revised Laws, chapter 121, section 13) and the common law forbid the latter company to dispose of all its property without special legislative authority, and that the entire transaction will amount in substance and effect to a stock dividend or a division of the proceeds of the sale of stock among its stockholders, which is expressly prohibited by the Revised Laws, chapter 109, section 20.

Counsel for certain gas consumers also raised some questions as to the validity of the so-called "franchise and consent" granted to the Haverhill Gas Company.

It was contended, on behalf of the petitioning company, that the Haverhill Gas Light Company may lawfully sell its property to the petitioner, and that where such sale is made, as in this case, for the purpose of liquidating the affairs and winding up the corporate existence of the former company, it is neither in law nor in fact a stock dividend nor a division of the proceeds of stock among its stockholders for the petitioner to issue capital stock to the amount of the fair value of the property which it is to acquire.

In the case under consideration the same persons own and control the corporate destinies of both the old and the new company. The same plant will continue to supply gas in the city of Haverhill whether its ownership is retained by the old company or acquired by the new. The same persons will continue in the control and ownership of the respective stocks of the two companies, whichever may hereafter own and operate this plant. If it should happen, as has been suggested, that the bonds of the Securities company should be cancelled and that company be dissolved, the present owners of its stock and bonds would become the direct and immediate holders of the stock of the Gas Light company.

From the explanation of the plans of those now in control of the companies it is obvious that one very important reason for transferring the plant to the new company is that it may be represented by a capital stock more nearly equivalent at par to its value. It is equally obvious that this purpose cannot be accomplished if the ownership of the plant is retained by the old company without the declaration of a stock dividend, in direct violation of the statutory prohibition. As an issue, merely for account of the old plant, of an increased amount of stock by the new company is to pass directly into the hands of the same persons, precisely the same result will be secured so far as relates to them or the public. For these reasons the Board cannot in any event see its way clear to approve, for account of the purchase of the old plant, prior to the recent expenditures thereon, any stock in excess of a par value of \$75,000.

Section 24 of chapter 109 of the Revised Laws provides that "a gas or electric light company shall issue only such amount of stock or bonds as the board may from time to time vote is reasonably necessary for the purpose for which such issue of stock or bonds has been authorized. Such decision shall be in writing, shall assign the reasons therefor, shall, if authorizing such issue, specify the respective amounts of stock or bonds which are authorized to be issued for the respective purposes to which the proceeds thereof are to be applied."

Under these provisions there may be fair ground for questioning the right of the Board to refuse to approve stock merely because it does not agree with the company as to the wisdom or expediency of certain expenditures which are yet within its corporate power, or even because in its judgment another company is already adequately and fairly serving a community, and a new plant may be an unnecessary duplication of capital. On the other hand, it is within the power, and doubtless is the duty, of the Board to refuse its approval of stock whose proceeds are to be devoted to an illegal purpose.

The request of the company is that the proceeds of a portion of the proposed stock issued be applied to the purchase of all the property of the existing Gas Light company. The municipal council insists that the Gas Light company has no authority to sell its property, and that such a sale is prohibited both at common law and by section 13 of chapter 121 of the Revised Laws. It may be conceded that if the old company were in actual process of liquidation, in bankruptcy or receivership proceedings, or under a decree of court for its dissolution, a new company might purchase its assets and be allowed to issue capital stock for such sum as might be reasonably necessary for the purpose, but in this case the old company has not encountered any of these vicissitudes of fortune. It is solvent, and no proceedings have been undertaken for its dissolution. It is actually engaged in the manufacture and sale of gas, and no conveyance of its property to the new

company has yet been made. If the contention of counsel for the city is correct, such conveyance will be void because it is contrary to the statute prohibiting a gas company from transferring its franchise, and because of the established common law principle that a public-service corporation cannot so dispose of its property as to take away its power to perform its public duties. The determination of this Board can neither make such conveyance valid nor invalid. That question is for the courts; it is not necessary that the Board should attempt to determine it. It is the opinion of the Board, however, that the question raised and the transaction to which it relates is of such importance, and that the legality of such a conveyance by the old company to the new is open to so serious doubt, that the Board ought not to approve an issue of stock for the purpose until either the conveyance has been actually made or its legality has been determined by some judicial tribunal.

Counsel for the municipal council thereupon moved that the Board dismiss the application. At the request of counsel for the company, however, the case was continued from time to time pending such further suggestions as to the form of the Board's final order and reasons therefor as either of the parties interested might make. On Dec. 4, 1911, counsel for the company submitted certain requests for findings of fact, rulings of law and alternative forms of orders, which were duly received and filed. Subsequently, further requests for findings of fact were submitted and filed. All of the oral evidence offered at the hearings was taken in shorthand and has since been extended in typewriting. After hearing the parties with respect to the findings and rulings requested, and after due consideration thereof, the Board refused to make any of the rulings of law or to enter either of the orders therein set forth. The Board further refused to make the findings of fact therein requested, save so far as the same are hereinbefore or hereinafter set forth.

The work of reconstructing and extending the plant and property to be acquired by the new company had been started prior to the filing of said application, and has meantime been substantially completed and charged to the Haverhill Gas Light Company. The Haverhill Gas Light Company was chartered by chapter 8 of the Acts of 1853. By chapter 163 of the Acts of the same year it was authorized to extend its mains into the town of Bradford. By chapter 61 of the Acts of 1869 the town

of Haverhill became the city of Haverhill. In 1897 Bradford was annexed to Haverhill.

The capital stock of the Haverhill Gas Light Company originally issued was \$50,000 and not \$45,000, and about 1872 it was increased to \$75,000. This is the amount now outstanding. All of the Haverhill Gas Light Company's plant and property used for the manufacture and sale of gas is located in Haverhill, and there is no other company actively engaged in that business therein. The Haverhill Gas Light Company is still actively engaged in the manufacture and sale of gas in Haverhill, and the plant and property now used and necessary for the purpose is the property which the Haverhill Gas Company proposed to acquire with the proceeds of this issue of stock. The Haverhill Gas Light Company has made annual returns to the Board, as required by law, since 1885. The Board had knowledge of their contents when the ruling hereinbefore set forth was made. On July 1, 1910, the Haverhill Gas Light Company reduced the maximum net price for gas supplied by it from \$1 to 90 cents, and on July 1, 1911, from 90 to 85 cents.

In April, 1909, Messrs. Stone & Webster purchased all of the outstanding 5,000 shares of the Haverhill Gas Securities Company for the sum of \$101,691.66. Between April 27, 1909, and Dec. 11, 1909, they purchased all of the outstanding \$500,000 bonds of the Securities company, and paid therefor, including certain expense items amounting to \$1,550, some small items of commissions and accrued interest on bonds purchased amounting to \$6,301.07, in all the sum of \$500,398.57. They still own all of the stock and bonds of the Haverhill Gas Securities Company so acquired. Copies of the letters written by the old and new company to the municipal council in the winter and spring of 1910, and the proceedings and votes of the council during the same period, and hereinbefore referred to, are filed with the records of the Board in this case. The so-called "franchise and consent" passed by the municipal council on June 30, 1910, as hereinbefore related, and the accompanying acceptance, contracts and declaration of trust, are also on file. A copy of the decree entered by the United States Circuit Court on Aug. 31, 1910, enjoining the enforcement of the Board's order of 1900,

as hereinbefore described, is filed with the records of the Board in this case.

The municipal council of the city has the authority of mayor and aldermen under general laws, and such further authority as is conferred upon it by the charter of said city, chapter 574 of the Acts of 1908.

The importance of the questions involved in this case, the wide divergence between counsel as to the law and public policy applicable thereto and the ability with which their respective views were urged made it seem appropriate last spring to consider at some length the Board's own views with respect to the matters discussed in the argument upon the city's motion to dismiss. The issue raised by that motion, however, involved primarily the authority of the Board to approve an issue of stock the proceeds of which were to be applied to the purchase from the old company of the plant and property used and necessary for the supply of gas by the old company to the inhabitants of Haverhill. In reaching its decision the Board did not deem it necessary to determine the value of the property owned by the old company which the new company proposed to acquire. The Board therefore adopted the following:—

On the petition of the Haverhill Gas Company, pursuant to the provisions of section 24 of chapter 109 of the Revised Laws, for the approval of an issue of new capital stock, of the par value of \$900,000, for the objects named in said petition, after public notice and hearing, in view of the facts and considerations, and for the reasons set forth in the foregoing decision and upon motion of counsel for the city of Haverhill, it is —

Ordered, That said petition be dismissed. (December 30.)

Miscellaneous.

MASTER PLUMBERS' ASSOCIATION OF LOWELL v. LOWELL GAS LIGHT COMPANY.

This was a complaint of the Master Plumbers' Association of Lowell relative to the sale and installation of gas appliances by the Lowell Gas Light Company, upon which a hearing was given by the Board to the petitioner, the State Association of Master Plumbers and the company. A statement of the facts found by the Board, and its conclusions, follow:—

The Lowell Gas Light Company was established by special law (Acts of 1849, chapter 234), "for the purpose of manufacturing and disposing of gas in the city of Lowell and its immediate vicinity," and is now engaged in that business. It appears that in connection therewith it has for a considerable period sold to its customers various types of gas appliances, including lamps, fixtures, stoves and hot-water heaters, and has a store at the corner of Merrimac and John streets for this purpose. In this branch of its business it has been and still is the practice of the company to install on the premises of its customers the appliances sold to them. At one time the cost to the company of the labor and material necessary for such installation was charged in each instance to the customer, in addition to the price of the appliance, but at the present time, as a rule, the company is selling such appliances at fixed prices, which includes their installation on the customers' premises. In the sale of hot-water heaters a water connection is necessary, and this work is required by law to be done by a licensed plumber. For this purpose the company has for several years employed a licensed journeyman plumber.

The avowed purpose of the company in fixing its prices for the sale and installation of the appliances in question is to make itself whole, but not to make a profit. The company finds its profit, if at all, indirectly in an increased sale of gas, due to the increase in the use of such appliances, and it stated that, especially with respect to hot-water heaters, there had been a great increase in their use since the adoption of a fixed price for the heater and its installation, and the abandonment of the policy of selling the heater separately, the customer paying either the company or some plumber the cost of installation.

It is claimed by the master plumbers, and there is obvious reason to believe, that, because of the practice of the company hereinbefore described, they find that the sale and installation of gas appliances at such prices as are necessary to meet those fixed by the company is unprofitable, and that in consequence they are virtually excluded from what might otherwise be a profitable branch of their business. It is further claimed that the company's acts in selling and installing such appliances are

ultra vires and unlawful, and it was upon this ground that complaint was made to this Board.

The Board has general supervision of this company and the duty of keeping itself informed as to the company's compliance with the provisions of law, and of giving notice to the company and the Attorney-General of any violation or neglect to comply therewith. It assumed that this complaint was made to the Board because of this supervisory authority and duty, and that, if it were satisfied that the company was violating or neglecting to comply with the provisions of law, the matter should be reported to the Attorney-General for his action.

The Board, however, is not satisfied that the acts of the company hereinbefore described are beyond its corporate powers. There can be no doubt that under its charter the main purpose for which it was incorporated was to manufacture and sell gas in Lowell and vicinity. It can exercise only such other purpose as may be subordinate and incidental to this main design. If the company had abandoned the manufacture and sale of gas, and were now devoting itself exclusively to the sale and installation of gas appliances, this would plainly be *ultra vires*. But such is not the fact. The sale of gas appliances is incidental merely to its main business of making and selling gas, in like manner as its sale of coke, tar and ammonia is incidental thereto. It is also important to the full accomplishment of this main business, for by having the company's customers install the greatest possible number of gas-consuming appliances, especially such as are designed to utilize gas during the portions of the year when relatively little is required for illuminating purpose, the sale of gas may be and unquestionably has been greatly increased. The Supreme Court in this State has repeatedly given a liberal interpretation to what is reasonably incidental to the specific chartered powers of a corporation, and in Pennsylvania, in a case similar to the one under discussion, the court expressly held that the sale of gas-consuming appliances and conveniences is within the corporate powers of a corporation organized to manufacture and supply illuminating and heating gas (*Malone v. Lancaster Gas Co.*, 182 Pu. St. 309).

In reaching its conclusions the Board has confined its consideration strictly to the question presented, as was requested. It has not entered into the expediency of the particular acts of this company or their effect upon its revenues, its output of gas or its ability to give its customers adequate service at a reasonable rate. All of these matters may have a bearing upon the proper performance by the company of its duty to the public, and their consideration may well be postponed until complaint is made, in the manner provided by law, of the prices or quality of the company's service.

It would be a distinct menace to the public interest and a serious embarrassment to proper supervision and regulation if corporations engaged in the performance of a public service should extend their activities to other lines of private trade or business. So long as the companies keep within what is plainly subordinate and incidental to the performance of their public service, no public interest seems to be injuriously affected or endangered, and for that matter the practice of selling and installing gas and electric appliances may often be clearly of public advantage.

In this particular case the Board is satisfied that no public interest has suffered, and that the acts of the Lowell company which have deprived the master plumbers of a possible profit have, on the other hand, operated to the immediate advantage of the purchasers of gas appliances, and indirectly to the advantage of all gas consumers in Lowell. If, however, the Board is wrong in its opinion that the company's acts are within its corporate powers, and if the private rights of the master plumbers or any of them are injured or put in hazard thereby, they have a clear remedy against the company in the courts on their own initiative. (March 16.)

EAST BOSTON CONTRACT.

Upon the petition of the Boston Consolidated Gas Company for the approval of a contract for the sale of gas by said Boston Consolidated Gas Company to the East Boston Gas Company, which petition was publicly heard on Dec. 2, 9 and 13, 1910, it was voted by the Board that the following contract,

being a modification and amendment of the contract contained in said petition, be approved, to wit: —

This agreement made in duplicate this fourteenth day of September, 1910, between the Boston Consolidated Gas Company (hereinafter called the Consolidated company) and the East Boston Gas Company (hereinafter called the East Boston company), both corporations duly established under the laws of the Commonwealth of Massachusetts, witnesseth as follows: —

First. — The Consolidated company agrees that it will for a period of two years beginning Dec. 1, 1910, furnish, sell and deliver to the East Boston company, at the latter's holder in Chelsea, such quantity of illuminating gas as the East Boston company may, during that period, require from day to day for the purpose of supplying its customers, not to exceed, however, 30,000,000 cubic feet of gas per month, such gas to conform in all respects to all legal requirements and to be of heating power equal to not less than 600 British thermal units.

Second. — The East Boston company agrees that it will pay to the Consolidated company 40 cents per thousand cubic feet for all gas sold and delivered to it under the provisions of this agreement, paying on or before the fifteenth day of each month for all gas sold and delivered during the month immediately preceding.

Third. — All gas sold and delivered under the terms hereof shall be measured by a meter provided by the East Boston company at its works in Chelsea, and that meter shall be open at all reasonable times to the inspection of the Consolidated company or its properly authorized representatives.

Fourth. — The East Boston company shall pay to the Consolidated company the sum of \$3,500 per year, payable in monthly instalments at the same time when payment is made for the gas sold and delivered, said sum being approximately 10 per cent. of the cost of the mains constructed by the Consolidated company in the city of Chelsea and used exclusively for the delivery of gas sold hereunder.

Fifth. — The East Boston company agrees that its own works shall, during the term of this agreement, be operated in the manufacture of gas to the greatest extent that shall be consistent with a due regard to efficiency and economy.

In witness whereof, the Boston Consolidated Gas Company and the East Boston Gas Company have caused their corporate seals to be hereto affixed and these presents to be signed in their names and behalf by their respective officers thereto duly authorized. (August 3.)

PETITION OF THE BROCKTON GAS LIGHT COMPANY.

This was an application by the Brockton Gas Light Company for authority, under the provisions of chapter 197 of the Acts of 1910, to carry on the business for which it was incorporated in the towns of Randolph, Holbrook and Avon.

The company was organized under the general law in the year 1859 for the purpose of manufacturing and selling gas for light and other purposes in the town of North Bridgewater, under the name of the North Bridgewater Gas Light Company. In the year 1874, pursuant to the provisions of chapter 113 of the Acts of that year, the name of the town of North Bridgewater was changed to Brockton, and by chapter 38 of the Acts of 1882 the name of the company was changed to the Brockton Gas Light Company.

The towns of Avon and Holbrook are contiguous to the city of Brockton and the town of Randolph adjoins both of said towns.

It appeared at the hearing that it was the intention of the company to construct through all the towns named a system of gas mains for high-pressure distribution, and the selectmen in all the towns have voted to give the company the necessary privileges in the streets. The following was adopted by the Board:—

On the petition of the Brockton Gas Light Company, a corporation established under the laws of this Commonwealth for the purpose of "making and selling gas in the town of North Bridgewater," now Brockton, for authority to carry on the business for which it was incorporated in the towns of Randolph, Holbrook and Avon in this Commonwealth, as provided in chapter 197 of the Acts of the year 1910,—

Voted, That the Board of Gas and Electric Light Commissioners, after notice and a public hearing and upon due consideration thereof, hereby authorizes the said Brockton Gas Light Company to carry on the business for which it was incorporated in the towns of Randolph, Holbrook and Avon, with all the rights, powers and privileges, and subject to all the duties and liabilities set forth in all general laws now or hereafter in force applicable to said corporation. (September 7.)

PETITION OF THE SOUTH HADLEY FALLS ELECTRIC LIGHT
COMPANY.

On the petition of the South Hadley Falls Electric Light Company, a corporation established under the laws of this Commonwealth for the purpose of manufacturing and selling electricity for light and other purposes in the town of South Hadley, in the county of Hampshire, for authority to carry on the business for which it was incorporated in the town of Granby in this Commonwealth, as provided in chapter 197 of the Acts of 1910, —

Voted, That the Board of Gas and Electric Light Commissioners, after notice and a public hearing and upon due consideration thereof, hereby authorizes the said South Hadley Falls Electric Light Company to carry on the business for which it was incorporated in the town of Granby, with all the rights, powers and privileges, and subject to all the duties and liabilities set forth in all general laws now or hereafter in force applicable to said corporation. (October 13.)

PETITION OF THE BUZZARD'S BAY ELECTRIC COMPANY.

This was an application by the Buzzard's Bay Electric Company, under the provisions of chapter 197 of the Acts of 1910, for authority to carry on the business for which it was incorporated in the towns of Barnstable, Bourne and Sandwich.

This corporation was organized in 1895 under the general law, with the name of "Martha's Vineyard Electric Light and Power Company," "to manufacture, sell and distribute electricity for use for lighting, for heating and for power upon the island of Martha's Vineyard." In 1909 its name was duly changed to "Buzzard's Bay Electric Company," and the corporation voted to remove its business from Martha's Vineyard to the town of Falmouth. It began to supply electricity in that town in September, 1909.

Bourne is contiguous to Falmouth, Sandwich to Bourne, and Barnstable to Sandwich, and Barnstable and Falmouth are separated by the town of Mashpee. It appeared at the hearing that there is a demand for electric service, chiefly from summer residents, in the villages of Pocasset and Monument Beach in Bourne, in the village of Hyannis in Barnstable and

in the town of Sandwich. With this application was heard an application of the Marion Gas Company, which is distributing electricity in Marion and Wareham, for authority to extend its lines into Bourne. The last-named company is now supplying one summer resident whose house is in Bourne but close to the Wareham line, and there appeared to be some demand for service to other summer residents in the neighborhood and in the village of Bourne. The town of Bourne covers a considerable territory and includes several distinct villages. The attitude of the selectmen was one of apparent indifference as to which company should supply electricity so long as an adequate supply at reasonable prices was furnished. Under all the circumstances both companies may well be restricted to those sections of the town which they respectively can most conveniently and economically reach. The following was therefore adopted:—

On the petition of the Buzzard's Bay Electric Company, a corporation established under the laws of this Commonwealth with authority "to manufacture, sell and distribute electricity for use for lighting, for heating and for power" in the town of Falmouth, for authority to carry on the business for which it was incorporated in the towns of Barnstable, Bourne and Sandwich in this Commonwealth, as provided in chapter 197 of the Acts of 1910,—

Voted, That the Board of Gas and Electric Light Commissioners, after notice and a public hearing, and upon due consideration thereof, hereby authorizes the said Buzzard's Bay Electric Company to carry on the business for which it was incorporated in the towns of Barnstable and Sandwich and in so much of the town of Bourne as lies south and east of a line beginning with the point where the railroad bridge of the New York, New Haven & Hartford Railroad Company crosses the thread of the stream of the Back River in said town of Bourne, and thence running due east to a point $70^{\circ} 35'$ west of the Greenwich meridian, and thence turning and running due north to the boundary line between the towns of Bourne and Plymouth, with all the rights, powers and privileges, and subject to all the duties and liabilities, set forth in all general laws now or hereafter in force applicable thereto. (November 7.)

PETITION OF THE MARION GAS COMPANY.

This was an application by the Marion Gas Company, under the provisions of chapter 197 of the Acts of 1910, for authority to extend its lines into the town of Bourne for the purpose of supplying in that town electricity for light, power and heat.

This company was organized in 1902, under the general laws of this Commonwealth, for the purpose of "making, selling and distributing gas and electricity, or either of them, for light and for heating, cooking, chemical and mechanical purposes, and for the purpose of generating and furnishing steam or hot water for heating, cooking and mechanical power in the town of Marion in the county of Plymouth." Soon after its organization it acquired a gas plant and began to make and sell gas, but it did not acquire an electric plant until 1910. In 1909, under a special act, it was authorized "to carry on the business of furnishing gas and electricity for heat, light and power in the town of Wareham," and is now actively engaged in the supply of electricity in that town.

Bourne is contiguous to Wareham, and the purpose of this application was to enable the company to extend its electric lines into Bourne, where it is now supplying a single customer whose residence is near the Wareham boundary, over his own lines. With this application was heard the petition of the Buzzard's Bay Electric Company to extend its lines into Bourne and certain other towns. For reasons mentioned in its decision on this last-named application, the Board believes that both companies may properly be permitted to extend their lines into Bourne, but only so far as to enable each to supply in those sections which it may most conveniently and economically reach. The following was therefore adopted: —

On the petition of the Marion Gas Company, a corporation established under the laws of this Commonwealth for the purpose of "making, selling and distributing gas and electricity, or either of them, for light and for heating, cooking, chemical and mechanical purposes, and for the purpose of generating and furnishing steam or hot water for heating, cooking and mechanical power in the town of Marion in the county of Plymouth," and authorized "to carry on the business of furnishing gas and electricity for heat, light and power in the town

of Wareham," for authority "to extend its lines into the town of Bourne for the purpose of furnishing its inhabitants with electricity for light, power and heat," as provided in chapter 197 of the Acts of 1910,—

Voted, That the Board of Gas and Electric Light Commissioners, after notice and a public hearing and upon due consideration thereof, hereby authorizes the said Marion Gas Company to carry on the business of furnishing electricity for heat, light and power in so much of the town of Bourne as lies north and west of a line beginning with the point where the railroad bridge of the New York, New Haven & Hartford Railroad Company crosses the thread of the stream of the Back River in said town of Bourne, and thence running due east to a point 70° 35' west of the Greenwich meridian, and thence turning and running due north to the boundary line between the towns of Bourne and Plymouth, with all the rights, powers and privileges, and subject to all the duties and liabilities, set forth in all general laws now or hereafter in force applicable thereto. (November 15.)

GAS COMPANIES.

The following table shows the corporate names and capital stock of the gas companies in active operation, and the names of the persons and corporations other than gas companies making and selling gas, on the thirtieth day of June last, with the localities supplied and the population of each according to the census of 1910. Unless otherwise noted the par value of each share of capital stock reported is \$100:—

CORPORATE NAME.	Localities supplied.	Population.	Capital.
Adams Gas Light Co.,	Adams,	13,026	\$60,000
Amesbury & Salisbury Gas Co.,	Amesbury,	9,894	60,000
	Salisbury,	1,658	—
Amherst Gas Co.,	Amherst,	5,112	100,000
Arlington Gas Light Co.,	Arlington,	11,187	100,000
	Belmont,	5,542	—
	Winchester,	9,309	—
Athol Gas & Electric Co.,	Athol,	8,536	214,300
Attleborough Gas Light Company Corporation,	Attleborough,	16,215	58,000
Atwood, L. Sidney, ¹	Chatham,	1,564	—
Barre Acetylene Gas Co.,	Barre,	2,957	2,400 ²
Barnardston Acetylene Light Co., ³	Barnardston,	741	2,300
Beverly Gas & Electric Co.,	Beverly,	18,650	285,900
Blackstone Electric Light Co.,	Blackstone,	5,648	10,000
Boston Consolidated Gas Co.,	Boston,	670,585	15,124,600
	Brookline,	27,792	—
	Milton,	7,924	—

¹ Manufacture of gas, minor portion of business.

² Par value, \$50.

³ Unincorporated.

CORPORATE NAME.	Localities supplied.	Population.	Capital.
Brockton Gas Light Co., . . .	Brockton, . . .	56,878	\$559,000
Cambridge Gas Light Co., . . .	Cambridge, . . .	104,839	1,200,000
Charlestown Gas & Electric Co., . .	Somerville (in part), . . .	61,085 ¹	—
	Boston (Charlestown District), . . .	41,444	600,000 ²
	Somerville (in part), . . .	16,151 ¹	—
	Medford (in part), . . .	—	—
	Everett (in part), . . .	—	—
Chicopee Gas Light Co., . . .	Chicopee, . . .	25,401	166,500
	South Hadley Falls, . . .	4,894	—
Citizens' Gas, Electric & Power Co., .	Nantucket, . . .	2,962	26,000
Citizens' Gas Light Co., . . .	Quincy, . . .	32,642	383,000
Clinton Gas Light Co., . . .	Clinton, . . .	13,075	123,000 ³
Cotuit Acetylene Gas plant, ⁴ . . .	Barnstable (Cotuit), . . .	4,676	2,226
Danvers Gas Light Co., . . .	Danvers, . . .	9,407	30,000 ³
Dedham & Hyde Park Gas & Electric Light Co., . . .	Dedham, . . .	9,284	141,750 ³
	Hyde Park, . . .	15,507	—
East Boston Gas Co., . . .	Boston (East Boston), . . .	58,488	575,000 ³
	Chelsea, . . .	32,452	—
Easthampton Gas Co., . . .	Easthampton, . . .	8,524	150,000
Edison (Brockton), . . .	Stoughton, . . .	6,316	948,800
Fall River Gas Works Co., . . .	Fall River, . . .	119,295	690,000
Fitchburg Gas & Electric Light Co., .	Fitchburg, . . .	37,826	566,150 ³
Framingham Gas, Fuel & Power Co., .	Framingham, . . .	12,948	75,000
Gardner Gas, Fuel & Light Co., . . .	Gardner, . . .	14,699	26,200
Georgetown Gas Co., . . .	Georgetown, . . .	1,958	7,500
Gloucester Gas Light Co., . . .	Gloucester, . . .	24,398	150,000 ³
Greenfield Gas Light Co., . . .	Greenfield, . . .	10,427	116,850 ³
	Turners Falls, . . .	4,698 ¹	—
Gregory, J. D., ⁵ . . .	Princeton, . . .	818	—
Hadley Lighting Co., . . .	Hadley, . . .	1,999	1,725 ³
Hatfield Gas Co., . . .	Hatfield, . . .	1,986	4,750 ³
Haverhill Gas Light Co., . . .	Haverhill, . . .	44,115	75,000 ³
Hyannis Acetylene Gas Plant, ⁴ . . .	Barnstable (Hyannis), . . .	4,676	6,014
Ipswich Gas Light Co., . . .	Ipswich, . . .	5,777	16,000
Lawrence Gas Co., . . .	Lawrence, . . .	85,892	1,900,000
	Methuen, . . .	11,448	—
	North Andover, . . .	5,529	—
	Andover, . . .	7,301	—
Leominster Gas Light Co., . . .	Leominster, . . .	17,580	50,000
	Lunenburg, . . .	1,393	—
Lexington Gas Co., . . .	Lexington, . . .	4,918	40,000
Lowell Gas Light Co., . . .	Lowell, . . .	106,294	1,000,000
	Dracut, . . .	3,461	—
	Tewksbury, . . .	3,750	—
	Chelmsford, . . .	5,010	—
Lynn Gas & Electric Co., . . .	Lynn, . . .	89,336	1,182,500
	Swampscott, . . .	6,204	—
	Saugus, . . .	8,047	—
	Nahant, . . .	1,184	—
	Marblehead, . . .	7,338	—
Malden & Melrose Gas Light Co., . .	Malden, . . .	44,404	1,584,000
	Melrose, . . .	15,715	—
	Medford (in part), . . .	—	—
	Everett (in part), . . .	—	—
Marion Gas Co., . . .	Marion, . . .	1,460	28,900
Marlborough-Hudson Gas Co., . . .	Marlborough, . . .	14,579	130,000
	Hudson, . . .	6,743	—
Milford Gas Light Co., . . .	Milford, . . .	13,055	72,300
	Hopedale, . . .	2,188	—
Natick Gas Light Co., . . .	Natick, . . .	9,866	50,000
New Bedford Gas & Edison Light Co., . . .	New Bedford, . . .	96,652	1,059,800

¹ Estimated.² Par value \$50.³ Par value, \$500.⁴ Unincorporated.⁵ Par value, \$25.⁶ Manufacture of gas, minor portion of business.

CORPORATE NAME.	Localities supplied.	Population.	Capital.
Newburyport Gas & Electric Co., .	Newburyport, .	14,949	\$285,000
Newton & Watertown Gas Light Co.,	Newton, .	39,806	560,000
	Waltham, .	27,834	—
	Watertown, .	12,875	—
	Wellesley, .	5,413	—
	Weston, .	2,106	—
North Adams Gas Light Co., .	North Adams, .	22,019	200,000
	Clarksburg, .	1,207	—
Northampton Gas Light Co., .	Northampton, .	19,431	120,000 ¹
North Attleborough Gas Light Co.,	North Attleborough, .	9,562	68,100
	Wrentham, .	1,743	—
Northfield Acetylene Gas Co., ² .	Northfield, .	1,642	3,276
Norwood Gas Co., .	Norwood, .	8,014	72,000
Otis Co., ² .	Ware, .	8,774	—
People's Gas & Electric Co., of Stoneham, .	Stoneham, .	7,090	10,000
	Reading, .	5,818	—
Pittsfield Coal Gas Co., .	Pittsfield, .	32,121	396,000
	Dalton, .	3,568	—
Plymouth Gas Light Co., .	Plymouth, .	12,141	40,000
Sadler, Thomas G., ² .	Attleborough, .	16,215 ⁴	—
Salem Gas Light Co., .	Salem, .	43,697	499,600
	Peabody, .	15,721	—
South Hadley Gas Co., .	South Hadley, .	4,894	5,000
Spencer Gas Co., .	Spencer, .	6,740	97,500
Springfield Gas Light Co., .	Springfield, .	88,926	1,137,500
	Agawam, .	3,501	—
	West Springfield, .	9,224	—
	Longmeadow, .	1,084	—
	Ludlow, .	4,948	—
Suburban Gas & Electric Co., .	Revere, .	18,219	675,200
	Winthrop, .	10,132	—
Sunderland Gas Co., .	Sunderland, .	1,047	1,200 ⁵
Taunton Gas Light Co., .	Taunton, .	34,259	220,000 ⁵
	Dighton, .	2,235	—
	Berkley, .	999	—
Vineyard Haven Gas & Electric Light Co., .	Vineyard Haven, .	1,196	10,000
Vineyard Lighting Co., .	Oak Bluffs, .	1,084	25,000
Waite & Smith, ² .	Dartmouth, .	3,793 ⁶	—
Webster & Southbridge Gas & Electric Co., .	Webster, .	11,509	170,000
	Dudley, .	4,267	—
	Southbridge, .	12,592	—
Williamstown Gas Co., .	Williamstown, .	3,708	40,000
Woburn Gas Light Co., .	Woburn, .	15,308	45,100
Worcester County Gas Co., .	Brookfield, .	2,204	85,000
	Leicester, .	3,237	—
	Monson, .	4,758	—
	North Brookfield, .	3,075	—
	Palmer, .	8,610	—
	Warren, .	4,188	—
	West Brookfield, .	1,327	—
Worcester Gas Light Co., .	Worcester, .	145,986	1,000,000

¹ Par value, \$25.² Unincorporated.³ Manufacture of gas, minor portion of business.⁴ Supplies a few customers in the village of South Attleborough.⁵ Par value, \$50.⁶ Supplies a few customers in the village of South Dartmouth.

The companies in Adams, Amherst, Athol, Beverly, Blackstone, Charlestown, Clinton, Easthampton, Fitchburg, Lawrence, Lynn, Marion, Nantucket, New Bedford, Newburyport,

North Adams, Oak Bluffs, Revere and Winthrop, Spencer, Webster and Southbridge and Williamstown supply gas and electricity. The Edison Electric Illuminating Company of Brockton supplies gas and electricity in the town of Stoughton.

The following statistics exhibit a summary of the financial operations of all the companies in the State compiled from the items relating to the manufacture and sale of gas in the returns of the last two years made to the Board:—

	FOR YEAR ENDING JUNE 30.	
	1910.	1911.
INCOME:—		
For gas sold by meter,	\$10,288,487 11	\$10,972,929 58
For gas supplied to public lamps,	240,651 79	241,323 84
For gas sold to other companies,	364,637 24	411,322 44
From sales of coke,	419,498 86	387,506 22
sales of tar,	142,680 29	178,303 55
sales of ammoniacal liquor,	57,134 09	58,891 43
rent of meters,	4,692 51	5,566 05
rent of gas stoves and engines,	313 50	3,089 07
rent of gas lamps,	18,979 19	24,891 71
public lamps other than gas lamps,	19,376 34	18,241 46
other sources,	650 30	1,666 74
Total,	\$11,557,101 22	\$12,303,732 09
EXPENSES:—		
1. Coals,	\$1,740,719 34	\$1,922,012 61
2. Enrichers,	841,403 40	833,631 35
3. Purifying materials,	41,938 98	37,275 55
4. Water,	31,068 97	25,724 95
5. Wages at works,	677,893 91	690,243 48
6. Repairs and maintenance of works,	378,090 35	359,430 46
7. Renewal of plant,	65,428 75	96,484 49
8. Apparatus and machinery,	51,242 84	56,941 21
9. Gas bought,	1,011,679 36	1,108,129 89
10. Wages of meter takers, clerical labor in distribution, and salary or commissions of collectors,	451,152 46	473,013 42
11. Repairs, renewals and maintenance of mains and service pipes,	273,174 95	299,380 66
12. Distribution tools and appliances,	93,640 96	125,836 13
13. Repairs and renewals of meters,	227,008 16	237,986 07
14. Gas stove fixing, repairs, etc.,	106,860 21	116,866 72
15. Lighting and repairing (gas lamps only),	66,119 45	59,783 66
16. Lighting and repairing, and materials used for other lamps,	23,164 90	30,214 75
17. Directors' allowances,	14,699 40	16,461 30
18. Salaries of officers,	245,553 67	264,654 41
19. General salaries,	306,315 89	355,067 70
20. Rent of offices,	58,164 78	62,423 79
21. General office expenses,	286,564 35	301,025 43
22. Taxes,	835,030 43	974,976 67
23. Insurance,	65,585 48	79,545 81
24. Law expenses,	39,100 75	29,686 33
25. Claims,	23,436 68	31,012 92
26. Bad debts,	14,428 76	16,707 30
27. Incidental expenses,	3,760 08	2,634 87
Total,	\$7,973,217 26	\$8,607,151 93

	FOR YEAR ENDING JUNE 30.	
	1910.	1911.
Leaving an apparent profit on their gas business of	\$3,583,883 96	\$3,696,580 16
They have also received for interest, etc.,	26,803 66	34,761 57
for rents, etc.,	1,594,864 89	218,692 38
as profits from electric lighting,	817,986 07	908,336 37
Making a total of	\$6,023,538 58	\$4,858,370 48
Leaving an apparent deficit of	-	1,894,628 31
From these receipts should be deducted:—		\$6,752,998 79
Interest on bonds and loans,	\$402,835 44	\$421,838 65
Dividends,	3,090,951 21	3,319,468 32
Other items,	2,009,642 22	3,011,691 82
	\$5,503,428 87	\$6,752,998 79
Leaving a surplus for the year of	\$520,109 71	-

Ten ¹ of the companies appear not to have earned expenses, and seventeen ² others have not earned sufficient to warrant the declaration of any dividend.

The receipts from gas sold by meter show an increase of \$684,442.47. The receipts from sales for public lamps have increased by \$672.05.

In Appendix B will be found, under date of June 30, 1911, the separate balance sheets, profit and loss and manufacturing accounts of the gas companies, as taken from the annual returns, with corrections made by the Board after their examination and correspondence with the officers of the several companies.

Aggregates from these balance sheets and those in the returns of 1910 show the following facts:—

	JUNE 30.	
	1910.	1911.
ASSETS:—		
Real estate, machinery, street mains and meters,	\$51,041,230 44	\$52,757,389 00
Cash on hand,	1,187,313 97	1,489,504 97
Due for gas,	675,049 26	700,298 91
Other accounts due,	549,910 60	622,063 94
Materials, etc.,	2,271,409 20	2,631,047 92
Notes receivable,	146,687 95	26,826 26
Investments, etc.,	1,311,528 85	1,338,573 90
Electric assets,	7,836,778 62	8,878,772 73
	\$65,019,908 89	\$68,444,477 63

• Sixteen last year.

• Seventeen last year.

	JUNE 30.	
	1910.	1911.
LIABILITIES:—		
Capital stock,	\$34,417,140 02	\$35,550,241 27
Bonds,	1,670,800 00	1,564,800 00
Notes payable,	6,193,236 68	7,422,936 72
Unpaid bills,	751,108 13	767,356 90
Unpaid dividends,	76,540 00	86,706 96
Deposits,	384,472 95	399,859 89
Interest due and unpaid,	1,652 77	2,925 18
Interest accrued but not due,	56,150 63	60,813 73
Premium on capital stock,	10,857,245 58	13,687,554 75
Other items,	1,783,741 83	279,318 14
	\$56,192,088 59	\$59,822,513 54
Reserved and depreciation funds,	828,187 47	2,456,513 70
	\$57,020,276 06	\$62,279,027 24
Surplus,	7,999,632 83	6,165,450 39
	\$65,019,908 89	\$68,444,477 63
Of these companies:—		
63 ¹ show an aggregate surplus of	\$3,166,376 14	\$6,226,612 68
8 ² show an aggregate deficit of	166,743 31	61,162 29
Leaving total net surplus, as shown above,	\$7,999,632 83	\$6,165,450 39
Which added to reserves carried as liabilities,	828,187 47	2,456,513 70
	\$8,827,820 30	\$8,621,964 09
Would show an actual surplus of	25.65	24.25
Equivalent to a per cent on capital of about		

¹ Sixty-six in 1910.² Nine in 1910.

Taxes.

The valuation of the property of the several companies as fixed by the local assessors may be found in detail in Appendix D. The aggregate valuation of all the companies is \$48,656,-463. Certain companies, however, have electric light plants, and the assessed value of such whenever separately returned is as follows:—

Amherst,	\$39,950	Marion,	\$18,000
Blackstone,	15,000	Spencer,	7,400
Citizens' (Nantucket),	12,965	Suburban (Revere),	494,650
Easthampton,	148,200	Webster,	183,725
Fitchburg,	520,264		
Lawrence,	874,085	Total,	\$3,670,764
Lynn,	1,356,525		

The value of the gas plants as assessed by the local assessors is then, in round numbers, probably not far from \$43,000,000, as there are electric plants at Adams, Athol, Beverly, Charles-town, Clinton, New Bedford, Newburyport, North Adams,

Oak Bluffs and Williamstown, which are not given in the last table.

The total sum paid by the companies for taxes, including State supervision, after apportioning to electric account that part of the gas companies' taxes belonging to their electrical departments, was \$974,976.67, an average of 7.2 cents per thousand feet of gas sold; being an increase over the amount paid the previous year of \$139,946.24 in the total and an increase of five-tenths of a cent for every thousand feet sold.

Dividends.

The amount paid in dividends by the several companies, the rate and amount per thousand feet of gas sold, will be found in detail in Appendix D. Seventeen companies paid no dividends. The 54 companies paying dividends paid out in all for this purpose the sum of \$3,319,468.32, which is an average rate of 9.5 per cent. on their capital stock.

Reductions in Price.

The following companies reduced the maximum net price of gas per 1,000 feet during the year ending June 30, 1911:—

Adams,	. . . . .	from \$1.20 to \$1.05
Amherst, ¹	. . . . .	from 6.00 to 1.50
Charlestown,	. . . . .	from .90 to .85
Chicopee,	. . . . .	from 1.35 to 1.25
Citizens' (Quincy),	. . . . .	from 1.50 to 1.40
East Boston,	. . . . .	from .90 to .85
Fall River,	. . . . .	from .85 to .80
Greenfield,	. . . . .	from 1.80 to 1.62
Haverhill,	. . . . .	from 1.00 to .90
Leominster,	. . . . .	from 1.60 to 1.50
Lexington, ¹	. . . . .	from 4.50 to 1.50
Lowell,	. . . . .	from .90 to .85
Lynn,	. . . . .	from .80 to .75
Malden,	. . . . .	from 1.00 to .95
Milford,	. . . . .	from 1.60 to 1.50
Natick,	. . . . .	from 1.65 to 1.60
New Bedford,	. . . . .	from .85 to .80
Newburyport,	. . . . .	from 1.40 to 1.35
Newton,	. . . . .	from .95 to .90

¹ Sale of oil gas abandoned.

North Adams,	from \$1.05 to \$1.00
Northampton,	from 1.25 to 1.15
People's (Stoneham),	from 1.80 to 1.50
Pittsfield,	from 1.25 to 1.15
Plymouth,	from 1.90 to 1.80
Springfield,	from .90 to .85
Vineyard Lighting,	from 3.60 to 3.51
Webster,	from 1.50 to 1.25
Williamstown,	from 1.20 to 1.05

Price.

The following pages show the prices charged by the several companies June 30, 1911, and the average price, per thousand feet, received from sales by meter in each of the two years ending June 30, 1910 and 1911:—

COMPANY.	Gross Price.	REMARKS.	MAXIMUM NET PRICE.		AVERAGE PRICE.	
			1911.	1910.	1911.	1910.
Adams, . . .	\$1 25	Discount 20 cents per M if paid before the 10th of the month; special rates of \$1 and 90 cents, respectively, to certain consumers. Minimum charge of 50 cents per month.	\$1 05	\$1 20	\$1 14	\$1 14
Amesbury, . . .	2 00	Discount 50 cents per M for fuel purposes, 75 cents per M for engines. Minimum charge, 50 cents per month; \$1 per month where electric light is used.	2 00	2 00	1 63	1 63
Amherst, . . .	1 50	For 500,000 cubic feet annually or over \$1.25 net. Minimum charge of \$3 each six months.	1 50 ¹	4 75 ²	1 72	4 45
Arlington, . . .	1 40	15 cents discount per M if paid before the 10th of the month. Prepayment meters at \$1.30. Minimum charge of 50 cents per month is made to consumers whose net bills average less than that amount during the year.	1 25	1 25	1 28	1 29
Athol, . . .	1 75	If more than 20,000 feet are used, \$1.45 per M. Gas for fuel purposes, \$1.45 to \$1.25, according to quantity used. Gas sold employees \$1. Yearly minimum charge of \$6; if monthly bills do not add to that amount, difference is added to monthly totals.	1 75	1 75	1 55	1 59
Attleboro, . . .	1 40	Discount 20 cents per M if paid on or before the 16th of the month. Minimum charge of \$3 per year for 2, 3 and 5 light meters, larger meters \$6 per year.	1 20	1 20	1 20	1 20
Atwood, L. Sidney (Chatham), . . .	15 00	Acetylene gas, . . .	15 00	15 00	15 00	15 00
Barre, . . .	15 00	Acetylene gas; \$12.50 to one large consumer; and 5 per cent. discount to another.	15 00	15 00	14 53	14 45
Barnardston, . . .	15 00	Acetylene gas; \$14 to one customer; 25 cents minimum charge.	15 00	15 00	14 82	14 68
Beverly, . . .	1 35	Discount 20 cents per M on all bills paid on or before the 15th of the month; one customer guaranteeing 1,000,000 to 4,000,000 feet per year, \$1.05 per M net minimum charge of \$1 per quarter.	1 15	1 15	1 17	1 17
Blackstone, . . .	1 35	Discount 10 cents per M if paid by the 10th of the month. Minimum charge of \$6 per year, payable 50 cents per month but adjusted at end of year on basis of year's consumption.	1 25	1 25	1 29	1 29
Boston Consolidated, . . .	80	Special rates for gas used for power and fuel exceeding 25,000 cubic feet per month ranging from 75 to 65 cents, with a discount of 30 per cent. on the excess of monthly bills over \$200. Minimum charge of 50 cents per month, with refund if bills exceed \$6 per year.	80	80	80.1	80.1

Brookton, . . .	1 20	Discount 10 cents per M on all bills paid on or before the 10th of the month. Price for power \$1 per M. Minimum charge of 50 cents monthly when less gas is used; that is, \$6 worth must be used yearly.	1 10	1 10	1 11	1 11
Cambridge, . . .	1 00	Discount 15 cents per M if paid within 10 days from date of bill. For mechanical purposes exceeding 25,000 cubic feet per month, prices range from 80 to 65 cents net.	85	85	85.4	87.8
Charlestown, . . .	1 00	Discount 15 cents per M if paid in 10 days. Meter rent of \$2 unless \$7 worth of gas is used yearly.	85	90	86.7	90.5
Chicopee, . . .	1 35	Discounts: 10 cents per M on bills to 14,900 feet; 20 cents per M to 39,900 feet; 35 cents per M for 40,000 feet or over, per month on bills paid on or before the 10th of the month.	1 25	1 35	1 19	1 26
Citizens' (Nantucket),	2 50	\$2 per M if more than 1,000 feet per month are used.	2 50	2 50	2 07	2 06
Citizens' (Quincy), . . .	1 40	Gas for power for 5,000 cubic feet and over per month \$1.25 to 80 cents per M according to amount used. For industrial fuel for 5,000 cubic feet and over per month \$1.25 and \$1 per M, according as amount is less than or exceeds 15,000 cubic feet. Minimum charge of 50 cents per month, with refund if consumer's bills amount to more than \$6 per year.	1 40	1 50	1 45	1 49
Clinton, . . .	1 80	Discounts: 20 cents per M on first 2,000 feet per month; 40 cents on excess of 2,000 feet per month, if paid before the 10th of the month. Special rates of \$1.35, \$1.25 and \$1, respectively, to 3 customers. Minimum monthly charge, 50 cents per month, to customers whose net bills average less than that amount during the year.	1 60	1 60	1 53	1 48
Cotuit, . . .	15 00	Acetylene gas,	15 00	14 50	14 92	14 93
Danvers, . . .	1 90	20 cents per M discount on all bills paid on or before the 15th of the month. Gas for prepayment meters \$1.80 net. To electric lamp manufacturers for manufacturing purposes \$1.26 net per M. Minimum charge \$1 per quarter.	1 80	1 80	1 62	1 62
Dedham, . . .	1 15	Discounts: 10 cents per M from 500 to 3,000 feet; 15 cents per M to 30,000 feet; 20 cents per M to 100,000 feet; 25 cents per M on 100,000 feet and over, for payment before the 10th of the month. Minimum charge of 50 cents per month to all using less than 500 feet per month.	1 15	1 15	1 04	1 07
East Boston, . . .	85	Gas engine and fuel rate, first 10,000 cubic feet, 85 cents; next 20,000 cubic cubic feet, 80 cents; next 20,000 cubic feet, 75 cents; next 50,000 cubic feet 70 cents; all over 100,000 cubic feet, 65 cents; a discount of 30 per cent. will be allowed on the excess over \$200 of bill figured as above. Minimum charge of 50 cents per month, with refund if consumer's bills amount to \$6 per year.	85	90	87.9	92.7
Easthampton, . . .	1 80	Discount 20 cents per M if paid within 15 days,	1 80	1 60	1 61	1 60

1 For water gas.

1 For oil gas.

COMPANY.	Gross Price.	REMARKS.	MAXIMUM NET PRICE.		AVERAGE PRICE.	
			1911.	1910.	1911.	1910.
Edison of Brockton, .	\$5 50	Discount 10 per cent. Prepayment meter customers \$5 net. Industrial heating \$4 net per M. One large customer \$4.13 net per M. Pure oil gas. Supplies in Stoughton only.	\$5 00	\$5 00	\$4 73	\$4 74
Fall River, .	90	Discount 10 cents per M for prompt payment; 70 cents per M to all parties using 2,500,000 feet or more per year; 60 per cent. of regular rates to employees. Where no gas is used a meter rent is charged of 20 cents per month for 3 and 5 light meters, 40 cents for 10 and 20 light meters, and more for larger sizes.				
Fitchburg, .	1 25	Discounts: 10 cents per M on first 15,000 feet; 25 cents per M on next 10,000 feet; 35 cents per M on next 10,000 feet; 45 cents per M on next 10,000 feet; 55 cents per M on all over 45,000 feet, if paid within 15 days. Minimum charge of 25 cents per month.	80	85	84.5	86.4
Framingham, .	1 80	Discounts: 10 cents per M to consumers of 1,000 to 2,000 feet; 25 cents to consumers of 2,000 to 10,000 feet; over 10,000 feet 35 cents. Special prices to large consumers. Minimum charge of 50 cents per month. Discount 20 cents per M if paid by the 10th of the month. Minimum charge of 40 cents per month.	1 15	1 15	1 14	1 14
Gardner, .	2 20	Acetylene gas,	1 80	1 80	1 51	1 55
Georgetown, .	15 00	Discount 10 cents per M if paid within 15 days. \$1 per year meter rent if consumer uses less than \$3 worth of gas per year.	2 00	2 00	2 00	2 00
Gloucester, .	1 20	Discount 10 per cent. if paid before the 10th of the month following.	15 00	15 00	15 00	15 00
Greenfield, .	1 80	Acetylene gas,	1 10	1 10	1 11	1 10
Gregory, J. D. (Princeton), .		Acetylene gas,	1 80	1 62	1 59	1 64
Hadley, .	15 00	Acetylene gas,	15 00	15 00	15 00	15 00
Hatfield, .	15 00	Acetylene gas,	15 00	15 00	14 86	15 02
Haverhill, .	1 00	Discount 10 cents per M if paid within 10 days. City of Haverhill, 80 cents per M. Minimum charge, payable annually, of \$6 if less than that amount is used.	15 00	15 00	14 90	14 32
Hyannis, .	15 00	Acetylene gas,	90	1 00	91.7	1 01
Ipswich, .	2 00	Gas for gas stoves, \$1.80.	15 00	14 50	14 89	14 92
Lawrence, .	1 00	Discount 10 cents per M if paid within 15 days. Discount 20 cents to large mills and to the city of Lawrence.	2 00	2 00	1 92	1 88
Leominster, .	1 70	Discounts on bills paid on or before the 10th of the month: 20 cents per M on first 2,000 feet; 45 cents per M in excess of 2,000 feet. Minimum	90	90	90.5	90.2

COMPANY.	Gross Price.	REMARKS.	MAXIMUM NET PRICE.		AVERAGE PRICE.	
			1911.	1910.	1911.	1910.
Northampton, . .	\$1 40	25 cents per M discount if paid in 10 days. Minimum charge of 50 cents a month to consumers whose net bills average less than that amount during the year.	\$1 15	\$1 20	\$1 24	\$1 33
North Attleborough, .	1 60	Discounts: 25 cents per M on bills up to 15,000 feet; over 15,000 feet and up to 40,000 feet, 35 cents per M; 40,000 feet or more, 45 cents per M, if paid before the 16th of the month. Minimum charge of 50 cents a month when consumer has not used over \$7 worth of gas during preceding 12 months.	1 35 15 00	1 35 15 00	1 30 15 00	1 31 15 00
Northfield,	15 00	Acetylene gas,	1 60	1 60	1 57	1 57
Norwood,	1 70	10 cents per M discount if paid by the 15th of the month; 25 cents per M discount to large consumers. 50 cents per month minimum charge.	1 50	1 50	1 31	1 33
Otis Company (Ware), .	1 50	To consumers of 5,000 to 10,000 feet or more per month, \$1.25, to consumers of 10,000 feet or more, \$1 per M. Minimum charge of 25 cents per month.	1 50	2 25	1 79	1 91
People's (Stoneham), .	1 60	Discount of 10 cents if paid in 15 days. Minimum monthly charge of 50 cents, with yearly adjustment if total consumption for year is \$6 or over.	1 15	1 25	1 14	1 16
Pittsfield,	1 30	Discount 15 cents if paid in 10 days. For industrial and mechanical uses price range from \$1.05 net for consumption of 75,000 to 100,000 cubic feet per month, and from \$1.10 to 70 cents net with additional discount of 10 per cent. for 100,000 cubic feet and over per month, according to amount used.	1 80	1 90	1 79	1 83
Plymouth,	1 90	Discount of 10 cents if paid in 20 days. Special rates of \$1.75 and \$1.50 net to certain customers. Minimum charge of 50 cents per month.	12 50	12 50	12 67	12 77
Sadler, Thos. G. (South Attleborough), . . .	13 50	Acetylene gas. Discount \$1 per M if paid within 20 days.	1 10	1 10	1 11	1 11
Salem,	1 30	Discount 20 cents per M if paid in 10 days; discount of 30 cents per M to one large consumer. Charge of 25 cents per month when gas is not used.	12 75	12 75	12 77	12 72
South Hadley,	15 00	Acetylene gas. Discount 15 per cent. if paid in 10 days. Meter rent \$1 per year.	1 60	1 60	1 53	1 54
Spencer,	1 80	Discount 20 cents for first 2,000 feet per month; 40 cents for all over 2,000 feet per month. Additional discount of 10 cents to consumers using gas ranges. Special rates to certain customers: \$1.50 for first 2,000 feet and \$1 for all over; and \$1.20 net per M and \$2.50 per month. Minimum charge of 50 cents per month to consumers whose net bills average less than that amount for the year,				

Springfield,	1 00	Discount 15 cents if paid within 15 days; also 10 cents per M on the excess over 50,000 cubic feet; 10 cents on first 100,000 cubic feet in excess of 50,000 cubic feet, and 20 cents per M if paid within 15 days. To consumers using over 25,000 cubic feet per month the following discounts: first 25,000, \$1.10 less 10 cents; next 10,000, \$1 less 10 cents; next 10,000, 90 cents less 10 cents; over 45,000, 80 cents less 10 cents. Minimum yearly charge of \$3.	85	90	87.1	89.6
Suburban (Revere),	1 10	Discount 10 cents per M if paid within 15 days.	1 00	1 00	1 00	1 03
Sunderland,	15 00	Acetylene gas.	15 00	15 00	15 00	14 79
Taunton,	1 10	Discount of 10 cents per M if paid within 15 days. \$1 gross price for 125,000 cubic feet and over per quarter; 90 cents' gross price for 1,000,000 cubic feet and over for manufacturing purposes per quarter less 10 cents if paid within 15 days. 25 cents per month charged when no gas is used, Acetylene gas. Discount of 10 per cent. if paid within 10 days. If more than 150 feet per month is used, \$12.50 per M.	1 00	1 00	98.7	1 04
Vineyard Haven,	15 00	Discounts: June to September inclusive, 10 per cent. to 50 per cent., according to amount of bill; October to May inclusive, 40 per cent. to 50 per cent., according to amount of bill.	13 50	13 50	11 69	13 05
Vineyard (Oak Bluffs),	3 90	Acetylene gas.	3 51	3 60	2 94	2 95
Waite and Smith (So. Dartmouth),	20 00	Discount of 10 cents per M if paid within 10 days. For mechanical purposes, 10,000 cubic feet or less \$1.35; 10,000 to 20,000 cubic feet, \$1.20; 20,000 to 30,000 cubic feet \$1.10; 30,000 to 40,000 cubic feet \$1 net per M.	20 00	20 00	20 00	20 00
Webster,	1 35	Discount of 20 cents on all bills paid on or before the 10th of the month. Monthly minimum charge of 50 cents to consumers whose net bills average less than that amount for the year.	1 25	1 50	1 36	1 41
Williamstown,	1 25	Discount 20 cents per M if paid within 15 days. Gas for 1 engine \$1.20 and for hospital, laundry and printing office \$1.25 per M. Minimum monthly charge of 25 cents on 5 light meters or under if consumption is less than 300 cubic feet, and of 50 cents for larger meters if consumption is less than 500 cubic feet.	1 05	1 20	1 15	1 25
Woburn,	1 60	Discount 20 cents per M if paid within 15 days.	1 40	1 40	1 40	1 41
Worcester County,	1 80	Discounts: 20 cents per M for first 2,000 feet per month; 40 cents per M all over 2,000 feet. Additional discount of 10 cents per M for use for gas ranges. Special rate to 1 customer of \$1.50 net for first 2,000 cubic feet and \$1 net for all in excess. Minimum monthly charge, 50 cents to consumers whose net bills average less than that amount for the year.	1 60	1 60	1 55	1 56
Worcester,	1 00	Discount 20 cents per M if paid on or before the 15th of the month. Minimum monthly charge of 25 cents when 100 cubic feet are not registered by meter.	80	80	80.6	80.5

The average price paid by consumers for coal gas to the companies selling annually more than 30,000,000 feet each is \$0.873 per thousand feet. If the Boston company be excluded the average is \$0.915. The average price received by the remainder of the coal-gas companies from sales by meter is \$1.53, the average received by all is \$0.890 per thousand. The average price for oil gas is \$4.73 per thousand feet. Acetylene gas is commonly billed to customers at a price per hundred feet instead of per thousand feet, as in other kinds of gas. The average price for acetylene gas is \$1.11 per hundred.

The average price paid by consumers of coal gas for sales by meter in 1886 was \$1.72; in 1887, \$1.66; in 1888, \$1.56; in 1889, \$1.50; in 1890, \$1.46; in 1891, \$1.43; in 1892, \$1.52; in 1893, \$1.45; in 1894, \$1.26; in 1895, \$1.21; in 1896, \$1.17; in 1897, \$1.15; in 1898, \$1.14; in 1899, \$1.12; in 1900, \$1.10; in 1901, \$1.08; in 1902, \$1.07; in 1903, \$1.06; in 1904, \$1.05; in 1905, \$1.05; in 1906, \$0.998; in 1907, \$0.948; in 1908, \$0.921; in 1909, \$0.914; in 1910, \$0.901.

NOTE. — The terms "coal gas" and "coal-gas companies" whenever used in the report are intended, unless otherwise qualified, to include all except the acetylene companies and those that make their gas entirely from oil distilled in closed retorts externally fired.

ELECTRIC LIGHT COMPANIES.

The following table gives the names of the persons and corporations under the supervision of the Board who were engaged in the supply of electricity on June 30, 1911, with the localities supplied by each and the population of the same according to the census of 1910, and the capital stock of the incorporated companies. Unless otherwise noted, the par value of each share of capital stock reported is \$100.

NAME.	Localities supplied.	Population.	Capital.
Abington and Rockland, Electric Light and Power Co. of,	Abington, Cohasset, Hanover, Norwell, Rockland, Scituate,	21,186	\$189,000 00
Adams Gas Light Co.,	Adams, Cheshire,	14,534	60,000 00
Adams, U. S.,	Townsend,	1,761	-
American Woolen Co., ¹	Acton, Maynard,	8,526	-
Amesbury Electric Light Co.,	Amesbury,	9,894	70,300 00
Amherst Gas Co.,	Amherst, Hatfield, Pelham,	7,565	100,000 00
Athol Gas and Electric Co.,	Athol, Erving, Orange, Wendell,	15,468	214,300 00

¹ Manufacture of electricity, minor portion of business.

NAME.	Localities supplied.	Population.	Capital.
Attleborough Steam and Electric Co.,	Attleborough, Seekonk,	18,612	\$235,000 00
Ayer Electric Light Co.,	Ayer,	2,797	30,000 00
Ballou, Gilbert M., ¹	Shirley,	2,139	-
Beverly Gas and Electric Co.,	Beverly, Hamilton, Topsfield, Wenham,	22,583	285,900 00
Blackstone Electric Light Co.,	Blackstone,	5,648	10,000 00
Block Plant Electric Light Co.,	Boston (in part),	-	9,800 00
Bridges, J. B. & Co., ¹	South Deerfield,	2,209	5,847 50
Buzzards Bay Electric Co.,	Falmouth,	3,144	11,000 00
Cambridge Electric Light Co.,	Cambridge,	104,839	850,000 00
Cape Light, Heat and Power Co.,	Provincetown,	4,369	35,000 00
Central Massachusetts Electric Co.,	Manson, Palmer, Warren, Wilbraham, West Brookfield,	21,215	150,000 00
Charlestown Gas and Electric Co.,	Charlestown,	41,444	600,000 00 ²
Chester Electric Light Co.,	Chester,	1,377	5,000 00
Citizens' Gas, Electric and Power Co. of Nantucket,	Nantucket,	2,962	26,000 00
Clinton Gas Light Co.,	Clinton, Lancaster,	15,539	123,000 00 ²
Colrain Electric Light and Power Co.,	Colrain,	1,741	2,500 00
Deerfield River Electric Light Co.,	Conway,	1,230	4,700 00
Easthampton Gas Co.,	Easthampton,	8,524	150,000 00
	Arlington,	-	-
	Ashland,	-	-
	Bedford,	-	-
	Bellingham,	-	-
	Boston,	-	-
	Burlington,	-	-
	Brookline,	-	-
	Canton,	-	-
	Chelsea,	-	-
	Cochituate,	-	-
	Dedham,	-	-
	Dover,	-	-
	Framingham,	-	-
	Franklin,	-	-
	Holliston,	-	-
	Hopkinton,	-	-
	Lexington,	-	-
Edison Electric Illuminating Co. of Boston,	Lincoln,	983,393	15,603,700 00
	Medfield,	-	-
	Medway,	-	-
	Millis,	-	-
	Milton,	-	-
	Natick,	-	-
	Needham,	-	-
	Newton,	-	-
	Norfolk,	-	-
	Sharon,	-	-
	Sherborn,	-	-
	Somerville,	-	-
	Stoneham,	-	-
	Walpole,	-	-
	Waltham,	-	-
	Watertown,	-	-
	Wayland,	-	-
	Westwood,	-	-
	Winchester,	-	-
	Woburn,	-	-
Edison Electric Illuminating Co. of Brockton,	Brockton, Avon, East Bridgewater, Bridgewater, Stoughton, Whitman,	83,550	948,800 00
Fall River Electric Light Co.,	Fall River, Somerset,	122,083	800,000 00
Fitchburg Gas and Electric Co.,	Fitchburg,	37,826	566,150 00 ²
Foxboro Electric Co.,	Foxborough,	3,863	16,500 00
Franklin Electric Light Co.,	Turners Falls,	6,866	20,000 00
Gardner Electric Light Co.,	Gardner,	14,699	170,000 00
Gloucester Electric Co.,	Gloucester, Rockport, Essex,	30,230	175,000 00
Great Barrington Electric Light Co.,	Great Barrington, Egremont, Sheffield,	8,348	125,000 00
Greenfield Electric Light and Power Co.,	Greenfield, Deerfield,	12,636	325,000 00
Haverhill Electric Co.,	Haverhill,	44,115	446,800 00
Huntington Electric Light Co.,	Huntington,	1,473	5,000 00
Hyde Park Electric Light Co.,	Hyde Park,	15,507	287,500 00

¹ Manufacture of electricity, minor portion of business. ² Par value, \$50. ³ Par value, \$500.

NAME.	Localities supplied.	Population.	Capital.
Lawrence Gas Co.,	Lawrence, North Andover, Methuen, Andover,	110,170	\$1,900,000 00
Lee Electric Co.,	Lee, Lenox,	7,166	30,000 00
Lenox Electric Co.,	Lenox, Stockbridge,	4,993	20,000 00
Leominster Electric Light and Power Co.,	Leominster, Lunenburg,	18,973	80,000 00
Loveland, W. O., ¹	Ashby,	885	-
Lowell Electric Light Corporation, . . .	Lowell, Billerica, Chelmsford, Tewksbury, Dracut, Tyngsborough, Westford,	124,984	1,023,000 00
Ludlow Manufacturing Association, ¹	Ludlow,	4,948	-
Lynn Gas and Electric Co.,	Lynn, Swampscott, Nahant, Saugus,	104,771	1,182,500 00
Malden Electric Co.,	Malden, Melrose, Medford, Everett,	116,753	525,000 00
Manchester Electric Co.,	Manchester,	2,673	115,500 00
Marlborough Electric Co.,	Marlborough, Berlin, Northborough, Southborough, Westborough,	24,387	200,000 00
Middleton Electric Light Co.,	Middleton,	1,129	1,550 00*
Millford Electric Light and Power Co., .	Millford, Hopedale,	15,243	40,000 00
Mill River Electric Light Co.,	Williamsburg,	2,132	15,000 00
Montague Electric Light and Power Co.,	Montague,	8,896	2,000 00*
Nashua River Paper Corporation, ¹	Pepperell,	2,953	-
New Bedford Gas and Edison Light Co.,	New Bedford, Fairhaven, Mattapoisett,	103,007	1,059,800 00
Newburyport Gas and Electric Co., . .	Newburyport, Newbury, Boston (in part),	16,431	285,000 00
Niles Trust Estate,	North Adams, Clarksburg,	23,226	200,000 00
North Adams Gas Light Co.,	Northampton,	19,431	117,400 00
Northampton Electric Lighting Co., .	Dana,	736	-
North Dana Box and Electric Light Co., ¹	Norton,	2,544	5,000 00
Norton Electric Light and Power Co., .	Pittsfield, Dalton,	35,689	375,000 00
Pittsfield Electric Co.,	Plymouth, Duxbury,	16,274	120,000 00
Plymouth Electric Light Co.,	Quincy,	32,642	250,000 00
Quincy Electric Light and Power Co., .	Holbrook, Randolph,	7,117	-
Randolph and Holbrook Electric Light Co., ¹	Salem, Peabody (in part),	43,697 ⁴	275,000 00*
Salem Electric Light Co.,	Buckland, Shelburne,	3,071	45,000 00
Shelburne Falls Electric Light and Power Co.,	South Hadley,	4,894	7,000 00
South Hadley Falls Electric Light Co.,	Spencer,	6,740	97,500 00
Spencer Gas Co.,	Boston (in part),	-	-
Steam and Power Co., ¹	Stockbridge,	1,933	40,000 00
Stockbridge Lighting Co.,	Revere, Winthrop,	28,351	675,200 00
Suburban Gas and Electric Co.,	Sunderland,	1,047	11,000 00
Sunderland Electric Light and Power Co.,	Charlemonst,	1,001	-
Turner, G. H.,	Tyngsborough, Dunstable,	1,237	-
Tyngsboro Electric Light Co., ¹	Franklin, Norfolk,	6,601	20,000 00
Union Electric Light Co.,	Springfield, Longmeadow, Ludlow, W. Springfield,	104,182	1,500,000 00
United Electric Light Co.,	Oak Bluffs, Vineyard Haven, Edgartown,	3,471	25,000 00
Vineyard Lighting Co.,	Ware, Hardwick,	12,298	40,000 00
Ware Electric Co.,	Webster, Dudley, Oxford, Southbridge, Sturbridge,	33,686	170,000 00
Webster and Southbridge Gas and Electric Co.,	Westborough,	5,446	36,500 00
Westborough Gas and Electric Co., . .	Weston, Wayland, Sudbury,	5,432	30,000 00
Weston Electric Light Co.,	Weymouth,	12,895	50,000 00
Weymouth Light and Power Co.,	Williamstown,	3,768	40,000 00
Williamstown Gas Co.,	Winchendon,	5,678	12,000 00
Winchendon Electric Light and Power Co.,	Worcester, Leicester,	149,223	1,000,000 00
Worcester Electric Light Co.,	Douglas, Grafton, Millbury, Northbridge, Sutton, Upton, Uxbridge,	31,224	275,000 00
Worcester Suburban Electric Co., . . .			

¹ Manufacture of electricity, minor portion of business.² Par value, \$25.³ Owned by estate of Charles Doughty.⁴ Salem only.⁵ Par value, \$50.⁶ Unincorporated.

The following table contains a summary of the financial operations of all the incorporated companies and privately owned plants engaged in the sale of electricity under the supervision

of the Board for the year ending June 30, 1910, and for the year ending June 30, 1911:—

	YEAR ENDING JUNE 30.	
	1910.	1911.
INCOME:—		
From sale of commercial arc lights by contract,	\$54,093 71	\$32,963 12
sale of commercial incandescent lights by contract,	104,054 94	115,751 17
sale of commercial arc and incandescent lights by meter,	6,505,691 62	7,167,569 33
sale of public arc lights,	1,400,028 42	1,418,435 64
sale of public incandescent lights,	575,251 36	675,677 04
sale of electric power,	2,313,393 49	2,677,425 37
current sold to other companies,	198,017 40	196,313 94
rent of motors,	3,387 59	2,296 66
rent of fixtures,	17,119 32	22,497 26
rent of meters,	5,139 51	10,312 31
steam heating,	29,826 51	33,867 34
Total,	\$11,206,003 87	\$12,353,109 18
EXPENSES:—		
1. Coal or other fuel,	\$1,255,700 04	\$1,458,252 27
2. Rent of real estate used for plant,	127,852 40	119,399 14
3. Oil and waste,	30,657 49	28,339 75
4. Water,	49,459 73	50,961 30
5. Wages at station,	653,807 48	666,149 99
6. Station repairs,	59,004 57	64,948 83
7. Steam plant repairs,	151,909 59	130,845 56
8. Electric plant repairs,	88,626 28	107,719 88
9. Station tools and appliances,	54,421 62	69,582 57
10. Current bought,	233,108 63	265,906 89
11. Wages for care of lights and meters, clerical labor in distribution department, and salary or commission of collectors,	373,908 24	391,838 32
12. Repairs and renewals of lines,	535,818 04	556,208 17
13. Repairs and renewals of meters, lamps and motors,	113,175 28	132,200 92
14. Distribution tools and appliances,	75,363 15	93,992 13
15. Carbons,	82,684 68	81,264 53
16. Incandescent lamps,	326,978 57	371,934 80
17. Globes,	3,128 74	2,608 32
18. Directors' allowances,	18,303 70	19,335 55
19. Salaries of officers,	247,057 28	274,009 41
20. General salaries,	515,925 13	549,336 69
21. Rent of offices, if separate from plant,	39,696 94	45,702 26
22. General office expenses,	372,258 12	350,238 98
23. Taxes,	963,766 41	1,080,409 17
24. Insurance,	173,197 72	186,151 82
25. Law expenses,	74,594 92	62,301 91
26. Claims,	2,707 15	1,700 83
27. Bad debts,	25,544 74	26,699 93
28. Incidental expenses,	89,436 46	63,078 47
Total,	\$6,738,093 10	\$7,251,118 39
Leaving an apparent profit of	\$4,467,910 77	\$5,101,990 79
Of this profit, the gas companies made in their electrical departments,	817,986 07	908,336 37
Leaving for the electric light companies,	\$3,649,924 70	\$4,193,654 42
To which should be added the income from rents, jobbing, etc., amounting to,	544,881 37	316,939 46
Making a total of	\$4,194,806 07	\$4,510,593 88

	YEAR ENDING JUNE 30.	
	1910.	1911.
Against which the following charges were made:—		
Interest,	\$428,929 20	\$436,305 23
Dividends,	2,411,202 12	2,662,702 54
Depreciation,	425,968 95	523,906 73
Sundry items,	785,577 58	720,713 40
	\$4,051,677 85	\$4,343,627 90
Leaving an apparent net profit for the year of .	\$143,128 22	\$166,965 98

Six ¹ of the corporations included above appear not to have earned expenses, and twenty ² others have not earned sufficient to warrant the declaration of any dividend.

From the above data it appears that the gross profits from electric lighting of all the companies increased \$634,080.02, and those doing only an electric business show an increase during the last year of \$543,729.72.

In Appendix B will be found, under date of June 30, 1911, the separate balance sheets, profit and loss and manufacturing accounts of the companies, as taken from the annual returns, with corrections made by the Board after examination and correspondence with the officers of the several companies.

Aggregates from the balance sheets of the electric companies only, taken from the returns of 1910 and 1911, show the following facts:—

	JUNE 30.	
	1910.	1911.
ASSETS:—		
Construction accounts, including franchises, .	\$41,382,188 02	\$45,047,626 67
Cash on hand,	633,244 55	873,001 47
Due for light and power,	818,663 21	812,474 20
Other accounts due,	144,115 97	168,550 30
Materials, etc.,	1,251,840 96	1,434,266 45
Notes receivable,	26,176 63	139,230 80
Investments,	2,707,630 16	2,851,873 93
	\$46,963,859 50	\$51,327,023 82
LIABILITIES:—		
Capital stock,	\$24,506,461 30	\$25,834,097 50
Bonds,	3,182,400 00	3,011,900 00
Notes payable,	3,800,006 22	5,962,619 63
Unpaid bills,	454,711 65	570,647 60
Unpaid dividends,	494,426 00	504,121 00
Interest due and unpaid,	592 53	462 50

¹ Three in 1910.² Seventeen in 1910.

	JUNE 30.	
	1910.	1911.
Interest accrued but not due,	\$31,389 69	\$63,473 05
Deposits,	45,782 96	55,775 18
Premium on capital stock,	11,329,749 37	12,130,680 24
Other items,	305,030 69	166,206 84
	\$44,150,550 31	\$48,289,983 54
Reserve and depreciation funds,	957,925 81	987,959 48
	\$45,108,476 12	\$49,277,943 02
Surplus,	1,855,383 38	2,049,080 80
	\$46,963,859 50	\$51,327,023 82
Of these companies:—		
51 ¹ show an aggregate surplus of	\$1,996,004 87	\$2,074,459 00
8 ² show an aggregate deficit of	140,621 49	25,378 20
Leaving total net surplus as shown above,	\$1,855,383 38	\$2,049,080 80
Which added to reserves carried as liabilities,	957,925 81	987,959 48
	\$2,813,309 19	\$3,037,040 28
Would show an actual surplus of	11.48	11.76
Equivalent to per cent. on capital of about		

¹ Forty-eight in 1910.² Eleven in 1910.

Taxes.

The valuation of the property of the several electric light companies, as fixed by the local assessors, may be found in detail in Appendix E. The aggregate valuation of all of the electric light companies is \$35,467,520. This does not include the valuation of the electric plants of the gas companies. The total sum paid by the companies for taxes, including State supervision and including the amounts paid by the gas companies on account of their electric plants, is \$1,080,291.05.

Dividends.

The amount paid in dividends by the several electric light companies and the rate per cent. will be found in detail in Appendix E. Twenty companies paid no dividends. The other 39 companies paid out in all as dividends the sum of \$2,662,702.54, which is an average rate of 10.5 per cent. on their capital stock.

Reductions in Price.

The following companies have reduced the maximum net price per kilowatt hour for electricity for commercial use during the year ending June 30, 1911:—

Cents per Kilowatt Hour.

Abington and Rookland,	from 18	to 16.2
Athol,	from 20	to 16
Attleborough,	from 15	to 14
Colrain,	from 16	to 15
Easthampton,	from 20	to 16
Fitchburg,	from 14.4	to 12
Foxborough,	from 20	to 15
Haverhill,	from 15	to 12
Huntington,	from 15	to 12
Lawrence,	from 13.5	to 12.6
Leominster,	from 16	to 15
Malden,	from 13	to 12
Milford,	from 19	to 18
New Bedford,	from 13.3	to 12.35
Newburyport,	from 15	to 14
North Adams,	from 13.5	to 12.5
Northampton,	from 15	to 14
Pittsfield,	from 17	to 14.4
Suburban,	from 15	to 13
United of Springfield,	from 15	to 12
Webster,	from 15	to 13.5
Westborough,	from 20	to 18
Worcester Suburban,	from 20	to 16

Price.

The following table shows the prices charged by the several electric light companies for commercial lights and power on June 30, 1911:—

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt per Hour.	Remarks (Discounts, Minimum Charges, etc.).	Maximum Net Price per K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt per Hour	Incandescents by Contract.	Aras by Contract.			1911.	1910.
Abington and Rock- land.	20 cents. .	-	-	10 cents. .	No free wiring. Carbon lamps fur- nished free, except in Cohasset and Sctuate, where customer pays for first installation. Minimum charge of \$1 per month, residences and fac- tories. Summer cottages minimum of \$10 for season. Store-guaranty 25 hours use of connected load. In Abington, Rockland, Haverover and Norwell 18 cents per k. w. h.; in Cohasset and Sctuate, 20 cents per k. w. h., with discount in all cases of 10% for cash in 15 days. In all towns 16 cents per k. w. h. for first 50 hours use per month of connected load, and 7 cents for all current in excess. For power, for 10 h. p. motors and under, 10 cents per k. w. h., with discounts according to amount used; from 10 h. p. to 50 h. p. \$2 for first k. w. installed and \$1.25 for each succeeding k. w. maximum motor rating and 3½ cents per k. w. h. for current consumed, with dis-	18	18

COMPANY.	LICENSING.		POWER.	REMARKS (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.			1911.	1910.
Abington and Rockland—Con.	-	-	-	counts based on size of installations; over 50 h. p. current is 3 cents per k. w. h. used, with discounts based on size of installation.	13.5	13.5
Adams.	15 cents.	According to hours of burning.	5 cents.	Lamp renewals free. Discounts if paid by 10th of month, 1½ cents for the first 15 k. w. h. per month; all in excess of 16 k. w. h. per month, discount 7 cents. Discount on power rates of 1 cent per k. w. h. Minimum charge of \$1 per month to customers whose net bills average less than that amount during the year.		
Adams, U. S. (Townsend).	20 cents.	12½ to 75 cents per lamp per month.	-	Lamp renewals 20 cents each. Power is sold at \$4 per month per ½ h. p. No charge less than \$1; no meter rent if more than \$12 of electricity per year used.	20	20
American Woolen Co. (Maynard).	15 cents.	-	10 cents.	Discounts to customers using per month 60 to 90 k. w. h. 5%; 90 to 119 k. w. h. 10%; 120 to 159 k. w. h. 15%; 160 to 199 k. w. h. 20%; 200 to 239 k. w. h. 25%; and 240 k. w. h. or more, 30%. Minimum rate of \$12 per year. Renewals at one-half cost, except tungstens at cost.	15	15
Amesbury.	20 cents.	\$1 per lamp per month. All night lighting, \$1.25 per month per lamp.	10 cents.	Special lamps at cost; meter rental, 25 cents per month; minimum monthly charge, \$1 and \$1.50 per h. p. of demand. For light, on monthly consumption, 5 to 10 k. w. h., 18	18	18

Amherst,	16 cents.	Contracts based on estimated meter basis.	-	-	10 cents.	<p>center; 15 k. w. h., 17½ cents; 20 k. w. h., 17 cents; 25 k. w. h., 16.5 cents; 30 k. w. h., 16 cents; 35 k. w. h., 15.5 cents; 40 k. w. h., 15 cents; 50 k. w. h., 14.5 cents; 60 k. w. h., 14 cents; 70 k. w. h., 13.5 cents; 80 k. w. h., 13 cents; 90 k. w. h., 12.5 cents; 100 k. w. h., 12 cents; 110 k. w. h., 11.5 cents; 120 k. w. h. and over, 11 cents; discount, 10% if paid in 15 days. For power, small customers, 10 cents; 4½ cents, 500 to 1,500 k. w. h.; 4 cents, 1,500 to 3,000 k. w. h.; 3½ cents, 3,000 to 5,000 k. w. h.; 3 cents, 5,000 k. w. h., and over, per month.</p> <p>Prices for power range from 10 to 3 cents, according to consumption. Wiring at consumer's expense; renewals at cost. Minimum charge of \$1 per month for lighting, and for power 1 h. p. or less, \$2.50; 2 to 5 h. p., \$1.50; 5 to 10 h. p., \$1.25, and over 10 h. p., \$1 per h. p. per month.</p> <p>Renewals at customer's expense in Athol. Renewals free in Orange, Erving and Wendell. For light, prices range from 16 to 8 cents per k. w. h., according to monthly consumption; with minimum charge of \$5 per year in Athol and 80 cents per month in Orange. For power, prices range from 10 to \$1.75.</p>	16	16
Athol,	16 cents.	-	-	-	10 cents.	<p>Wiring and renewals, except to contract customers, at customer's expense. Minimum charge of \$1 for lighting and \$1 per h. p. for power per month; for light, prices range from 14 to 10 cents, and for power, sliding scales from 7 to 1½ cents.</p>	20	15
Attleborough,	14 cents.	\$1 to \$1.50 per lamp per month.	10 cents per k. w. h.,	-	7 cents.	<p>Wiring and renewals, except to contract customers, at customer's expense. Minimum charge of \$1 for lighting and \$1 per h. p. for power per month; for light, prices range from 14 to 10 cents, and for power, sliding scales from 7 to 1½ cents.</p>	14	15

COMPANY.	LIGHTING.			POWER.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. H. W. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Ares by Contract.	Maximum Rates by Meter per Kilowatt Hour.		1911.	1910.
Ayer,	20 cents.	On contract, according to consumption.	On contract, according to consumption.	10 cents.	For light, discounts vary from 10% for less than 50 k. w. h. to 50% for 500 k. w. h. and over, per month, if paid in 10 days. For power, discounts vary from 33% for less than 100 k. w. h. to 71% for 5,000 k. w. h. and over per month, if paid in 10 days, with service charge per month of \$1 for $\frac{1}{4}$ h. p., \$1.50 for $\frac{1}{2}$ h. p., \$3 for 1 h. p., \$3 for 2 h. p., \$3.50 for 3 h. p. and \$1 per h. p. for 4 h. p. and over. Renewals at cost. Minimum monthly charge of \$1. Customers pay for wiring and renewals. Minimum monthly charge of \$1.	18	18
Ballou, G. M. (Shirley).	15 cents.	25 cents per month for 16 c. p. lamp.	-	-	No free wiring and no renewals. For light, discount of 20% if paid in 15 days; in Topsfield price is 20 cents, with 25% discount for prompt payment. Minimum monthly charge of \$1. For power, discounts vary according to amount of current used, if paid in 15 days, with minimum monthly charge, \$1 per h. p. of motors installed.	15	15
Beverly,	15 cents.	-	Supplied by meter at incandescent rates, with exception of 2 special rates.	10 cents.		12	12
Blackstone,	15 cents.	-	\$10.85 per month per lamp.	-	Wiring at cost; renewals of carbon lamps free except for broken lamps; tungstens at cost. Minimum charge of \$1 per month. Prices for light 15 and 12 $\frac{1}{2}$ cents. Wholesale (yearly	15	15

Block Plant (Boston),	-	\$1.33½ per lamp per month,	Supplied at incandescent rates, 15 ampere lamp equivalent to 10 16 c. p. lamps.	10 cents per h. p. hour.	<p>contract), \$4 per month per k. w. of connected capacity, except theatres, etc., where indicated demand will be taken and 7 cents per k. w. h.; minimum under 2 k. w. capacity, \$8 per month, over 2 k. w. capacity, \$4 per month; with discounts of 10 to 30%, according to capacity; and also 9% discount if paid in 10 days. For power, monthly service charge of \$2 per h. p. of yearly maximum demand and 2½ cents per k. w. h.; with discounts for 10 h. p. and over, running up to 40%, according to capacity; and also discount of 10% if paid in 10 days.</p> <p>Customers pay for wiring. Renewals, carbon lamps free; special lamps at special prices. For light, 1 cent per lamp hour for 400 primary hours per year; ½ cent per lamp hour for all excess or secondary hours, less 10% special discount to large consumers. Discount to power customers from 10 to 40%, according to amount used. Minimum monthly charge of \$1.</p> <p>No free wiring or lamp renewals. Price to customers using over 50 k. w. h. per month, 16 cents per k. w. h. Meter rent of 25 cents per month when less than 25 k. w. h. are used.</p> <p>No free wiring. Discounts during June to September inclusive of 10% for monthly bills of 75 cents and over to 50% for \$60 and over if paid in 10 days, with smaller discounts if paid in 20 days. Larger discounts are made during remainder of year. Also a demand rate of 3½ cents per</p>	20	20
Bridges, J. B., & Co. (South Deerfield).	20 cents.	-	-	15 cents.	<p>No free wiring or lamp renewals. Price to customers using over 50 k. w. h. per month, 16 cents per k. w. h. Meter rent of 25 cents per month when less than 25 k. w. h. are used.</p> <p>No free wiring. Discounts during June to September inclusive of 10% for monthly bills of 75 cents and over to 50% for \$60 and over if paid in 10 days, with smaller discounts if paid in 20 days. Larger discounts are made during remainder of year. Also a demand rate of 3½ cents per</p>	20	20
Bussard's Bay (Fall month).	30 cents.	-	-	-	<p>No free wiring. Discounts during June to September inclusive of 10% for monthly bills of 75 cents and over to 50% for \$60 and over if paid in 10 days, with smaller discounts if paid in 20 days. Larger discounts are made during remainder of year. Also a demand rate of 3½ cents per</p>	27	-

COMPANY.	Learning.			Power.	Remarks (Discounts, Minimum Charges, etc.).	Maximum Net Prices per K. W. H. (Current).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Arcs by Contract.			1911.	1910.
Bussard's Bay (Falmouth) — Com.	-	-	-	-	watt per month for first 25 watts, 21 cents for the next 50 watts and 11 cents for all over 75 watts actually demanded in any month. A minimum season charge of 30 cents for each 25 watt unit connected must be paid before connection is made and this must amount on a demand contract basis to at least \$9 and on watt-meter basis with 3 months use guaranteed to at least \$12. No bill is made out for less than 75 cents. Renewals free for carbon filament lamps; tungstens at cost. 10% discount from meter rates on lighting bills paid before the 16th day of the month up to 400 k. w. h., then all over 7 cents per k. w. h. For power, discounts range from 10 to 14 cents, according to amount used; discount of 10% if paid on or before 16th day of month. Minimum monthly charge of \$3 to \$5 for motors. For 3-year contract for minimum of 5,000 k. w. h. for power use per month \$103.58, and for all over 5,000 k. w. h. up to 91,434 k. w. h. prices vary with consumption from 1.85 to 1.5 cents, and for all over 91,434 k. w. h. per month \$1.75 per k. w. h. net.	12	12
Cambridge.	13} cents,	-	Supplied by meter at incandescent rates, with minimum charge of \$2 per lamp.	10 cents.			

Cape (Provincetown).	15 cents.	50 cents per month for each 16 c. p. lamp. 1½ cents per watt for tungstens.	-	-	15 cents.	No free wiring; renewals at cost. Minimum monthly charge \$1.	15
Central Massachusetts (Palmer).	17 cents.	-	-	-	13 cents.	<p>Renewals free. On lighting bills a discount of 10% allowed on 50 k. w. h.; 15% on 100 k. w. h.; 20% on 150 k. w. h.; 25% on 200 k. w. h.; 30% on 250 k. w. h., if paid on or before the 10th of the month. For street railway purposes, 2 cents per k. w. h., with power for 10 h. p. motors and under, 12 cents per k. w. h. for first 50 k. w. h. used per month and 8 cents for all in excess. An increase in price of 1½ of a cent per k. w. h. for each increase of 10 cents in price of coal above \$4.70 per long ton, with the following discounts for monthly consumption: 75,000 to 100,000 k. w. h., 5%; 100,000 to 150,000 k. w. h., 10%; and over 150,000 k. w. h., 15%.</p> <p>Lamp renewals free. No free wiring. Monthly minimum charge of \$1. Electricity for any use is sold at 12 cents per k. w. h., with discount of 1 cent if paid within 10 days. For power prices, 10 cents per k. w. h., with discounts up to 40% and also demand system at 12 cents for first 23 hours use per month of demand; 9 cents per k. w. h. for electricity furnished in excess of 23 and not exceeding 103 hours use of demand; and 6 cents for all in excess of 103 hours use of demand per month, with a discount of 70% on that portion of monthly bill calculated at 9 and 6 cent rates exceeding \$10, and a</p>	17
Charlestown.	12 cents.	-	1 lamp at \$12 per month.	-	12 cents.	<p>Lamp renewals free. No free wiring. Monthly minimum charge of \$1. Electricity for any use is sold at 12 cents per k. w. h., with discount of 1 cent if paid within 10 days. For power prices, 10 cents per k. w. h., with discounts up to 40% and also demand system at 12 cents for first 23 hours use per month of demand; 9 cents per k. w. h. for electricity furnished in excess of 23 and not exceeding 103 hours use of demand; and 6 cents for all in excess of 103 hours use of demand per month, with a discount of 70% on that portion of monthly bill calculated at 9 and 6 cent rates exceeding \$10, and a</p>	11

COMPANY.	Licensing.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM Net Prices per K. W. H. (Current).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Arcs by Contract.			1911.	1910.
Charlestown — Con., .	-	-	-	-	discount of 30% on monthly bills exceeding \$100 after making all foregoing deductions. For yearly electric service for any use \$60 per year per k. w. of demand up to and including 15 k. w.; \$36 per year per k. w. of demand exceeding 15 k. w. up to and including 55 k. w.; \$30 per year per k. w. of demand exceeding 55 k. w., and 5 cents per k. w. h. for electricity furnished up to and including 1,500 k. w. h. per month; 3 cents for all exceeding 1,500 up to and including 5,500 k. w. h. per month, and 2½ cents for all exceeding 5,500 k. w. h. per month. For permanent electric service to customer guaranteeing not less than 50 k. w., \$60 per year per k. w. of demand up to 15 k. w., \$36 for all exceeding 15 and up to 55 k. w., and \$30 for all exceeding 55 k. w., and 5 cents per k. w. h. for first 1,500 k. w. h. per month, 3 cents from 1,500 to 5,500 k. w. h., 1½ cents from 5,500 to 105,500 k. w. h. and 1½ cents for all excess over 105,500. For permanent theatrical service with demand of not over 160 k. w., \$2,160 per year, and 3 cents per k. w. h. for amount used. Under last		

Chester,	20 cents, .	-	-	-	-	20	20	schedules a deduction of $\frac{1}{2}$ cent per k. w. h. is made if customer provides lamps and care.
								Customers pay for wiring; renewals at customer's expense. A service charge of 50 cents plus 12 cents per lamp of estimated demand, with a primary rate of 20 cents on the first 2 k. w. h. times the demand, and a secondary rate of 10 cents on excess; 10% discount for prompt payment.
Citizens' (Nantucket), .	20 cents, .	-	-	-	-	20	20	No free wiring. Renewals 25 cents each for carbon lamps and tungstens at cost. Minimum monthly charge \$1.
Clinton,	20 cents, .	-	-	-	10 cents, .	18	18	First installation free; renewals at cost. 10% to 50% discount on lighting bills, according to amount consumed, if paid in 10 days. Discount on power bills, if paid in 10 days varying 33 to 71%, according to consumption, with a service charge of \$1 to \$3.50 per month for motors from $\frac{1}{4}$ to 3 h. p., and of \$1 per h. p. for motors of over 3 h. p. Minimum charge of \$1 per month.
Colrain,	15 cents, .	-	-	-	6 cents, .	15	16	Customers pay for wiring. Renewals of carbon and gem filament lamps free; Masada lamps at customer's expense. For light, prices range from 15 to 8 cents, according to monthly consumption. For power, prices range from 6 to 1.8 cents, according to monthly consumption, with service charge of \$1.50 per month up to and including 3 h. p. and 50 cents per h. p. for all installations exceeding 3 h. p.

COMPANY.	LIGHTING.			REMARKS (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Arcs by Contract.		1911.	1910.
Deerfield River (Con-way). Easthampton, . . .	- 18 cents.	On basis of $\frac{1}{2}$ cent per hour for 50 watts. 50 cents and \$1 per lamp per month.	\$50 per year, net. -	Customers pay for wiring and renewals. No lamp renewals. For light, discounts ranging from 2 to 10 cents are allowed for prompt payment, according to monthly consumption. For power, prices range from 6 to 1.9 cents, according to amount used per month. Minimum monthly charge, \$1 per month, for power, \$1.50, and above 3 h. p., 50 cents per h. p. per month. Renewals free for standard carbon lamps. No free wiring. Minimum monthly charge of \$1. For yearly electric service, \$60 per year per k. w. of demand up to and including 15 k. w.; \$36 per k. w. per year for all k. w. exceeding 15 up to and including 55 k. w.; and \$30 per k. w. per year for all k. w. exceeding 55, with 5 cents per k. w. h. for first 1,600 k. w. h. consumed per month, 3 cents for all k. w. h. exceeding 1,600 up to 5,500, and 2 $\frac{1}{2}$ cents for all k. w. h. exceeding 5,500; and for all customers guaranteeing at least 50 k. w. of permanent electric service, 1 $\frac{1}{2}$ cents for all k. w. h. exceeding 5,500 and up to and including 105,600 k. w. h. per month, and 1 $\frac{1}{2}$	- 16	- 20
Edison (Boston), . . .	11 cents.	-	At same rates as incandescents.		11	11

<p>Edison (Brooklyn). . . 16½ cents,</p>	<p>Each 5-ampere lamp 8 cents for first 25 lamp hours per month and 4 cents per lamp hour for all in excess; for 4-ampere lamp 6 cents for first 25 lamp hours and 3 cents for excess per month; with minimum charges of \$3 and \$1.50 per month respectively. Flaming arc lights 10 cents per k. w. h. Series arc, \$7.50 per lamp per month.</p>	<p>15 cents.</p>	<p>cents for all k. w. h. exceeding 105,500 k. w. h. For permanent theatrical service, to a customer for not over 150 k. w. the sum of \$2,160 per year and 3 cents per k. w. h. for all electricity consumed. For power, 12 cents per k. w. h. for all electricity furnished per month up to 23 hours use of demand; 9 cents for all exceeding 23 and up to and including 103 hours use of demand; 6 cents for all exceeding 103 hours use of demand, and if that portion of the monthly bill calculated at 9 and 6 cents exceeds \$10, a discount of 70% is allowed on excess, and if the monthly bill, after foregoing deductions have been made, exceeds \$100, a discount of 30% is allowed on the excess.</p> <p>Lamp renewals free for carbon and gem lamps. Tungsten lamps at cost. No free incandescent wiring. For light, 16½ cents per k. w. h. for first 30 hours monthly burning, and 10 cents for all in excess, with a monthly minimum charge of \$1 and discount of 10% for prompt payment. For power, 1 to 10 h. p. motors, 15 to 5 cents per k. w. h., according to monthly consumption; 10 h. p. up in motors, service charge of \$1.25 per k. w. of maximum demand plus current consumed at 3 cents per k. w. h., less sliding scale of discounts, according to size of installations; service charge is made monthly minimum charge on last schedule and \$1 per h. p. per month on first schedules.</p>
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COMPANY.	Lighting.			Power. Maximum Rates by Meter per Kilowatt per Hour.	Remarks (Discounts, Minimum Charges, etc.).	Minimum New Prices per K. W. H. (Garrs).	
	Maximum Rates by Meter per Kilowatt per Hour.	Incandescents by Contract.	Area by Contract.			1911.	1910.
Fall River,	12 cents.	-	-	10 cents.	Carbon lamps free; tungstens at cost. No free wiring. Minimum monthly charge of \$1. For light, prices range from 12 to 5 cents, according to amount used. For power, prices range from 10 to 1½ cents, according to amount used. Discount of 10% on all bills if paid before 15th of month.	10.8	10.8
Fitchburg,	13 cents.	-	Current supplied at meter rates with minimum monthly charge of \$3 per lamp per month on contracts for one year or more; \$3, on contracts for six months or more, and \$5, on contracts for three months or more.	10 cents.	No free wiring. Lamps for new installations free, and free renewals. Minimum charge of \$12 per year. For light, 13 cents for first 100 k. w. h.; 12 cents for next 200 k. w. h.; 10 cents for next 300 k. w. h.; 8 cents for next 400 k. w. h.; 6.5 cents for next 600 k. w. h. and 4.5 cents for next 800 k. w. h. per month, with discount of 1 cent per k. w. h., if paid in 15 days. Tungsten sign and window lighting, 5 cents per week, 8½ cents per 5 watt, 50 cents per 25 watt, 65 cents per 40 watt, 95 cents per 60 watt, \$1.50 per 100 watt and \$3.05 per 250 watt lamp per month. For power, demand system based on 60% of capacity of motors, a minimum charge of \$1 per month per h. p. of	12	14.4

Foxborough,	15 cents.	-	-	-	10 cents.	15	20
Franklin (Turners Falls).	12 cents.	-	-	-	5 cents.	12	12
Gardner,	15 cents.	-	-	-	5 cents.	15	15
Gloucester,	20 cents.	-	-	-	12.5 cents.	20	20

demand and prices for current in excess of 10 k. w. h. per h. p. of demand ranging from 5 to 1 cent, according to amount used, with discount of 10% for prompt payment. No free wiring; renewals, free for carbon lamps; tungstens at customers' expense. Minimum monthly charge of \$1. For light, prices range from 15 to 11 cents, according to monthly consumption. For power, prices range from 10 to 5 cents, according to monthly consumption. For electric ranges, 8 cents per k. w. h. Wiring at cost and renewals free for carbon lamps; for tungstens, at 25 cents below cost. Minimum monthly charge of \$1. For light, prices range from 13 to 8 cents per k. w. h., according to amount used. For power, prices range from 5 cents maximum to 3 cents minimum per k. w. h., with no fixed schedule. Renewals free. Meter rent of 10 cents per month, if less than \$15 per year. Minimum of \$3 per month for power. For store lighting, 12½ cents per k. w. h. Also a demand rate of 15 cents per k. w. h. for 3 k. w. h. per month for each 100 watts installed, and 6 cents per k. w. h. for all current in excess. For power, graded scale from 5 to 2½ cents per k. w. h. Renewals free to yearly customers; to transient customers at cost. Minimum monthly charge of \$1 for light. For light, price for transient customers, 20 cents; for yearly customers, 15 cents, with discounts

COMPANY.	Lighting.			Power. Maximum Rates by Meter per Kilowatt per Hour.	Remarks (Discounts, Minimum Charges, etc.).	Maximum Net Prices per K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt per Hour.	Incandescents by Contract.	Area by Contract.			1911.	1910.
Gloucester — <i>Cons.</i> ,	-	-	-	-	ranging from 10 to 20%, according to amount of bill, if paid before 15th of month. For power, 13.5 cents, with discounts ranging from 10 to 35%, according to amount of bill. Renewals free for 60-watt carbon lamps and larger; at customer's expense for 40 and 20 watt lamps. Discount 20% on bills for lighting paid on or before 15th of month. For power, prices range from 10 to 3.2 cents, according to amount used. Minimum monthly charge of \$1 for meter service, and 87½ cents for contract service. Meter rental of 50 cents per month on power services if less than 10 k. w. h. are used.	14.4	14.4
Great Barrington,	18 cents.	Minimum monthly charge of 87½ cents per 16 c. p. lamp.	-	10 cents.	Lamp renewals free for carbon and gen filament lamps. For light, prices range from 15 to 8 cents, according to amount used, with a discount of 10% if paid in 10 days on all monthly bills in excess of \$1.05. For power, prices range from 6 to 1.8 cents, according to amount used. Minimum monthly bill on power service to and including 3 h. p., \$1.50; over 3 h. p., 50 cents for each h. p. connected; minimum rate is charged whether current is used or not.	13.5	13.5
Greenfield,	15 cents.	Contract prices for every night (except Sunday) to 10.30. Sign and window display lighting, using Mazda lamps: 60-watt lamp, 60 cents; 100-watt, 90 cents; 5 watt less than 100, 7½ cents, and 5 watt over 100, 7 cents, per month.	-	6 cents.			

Haverhill,	13 cents.	Flat window and sign rate: lamps burning 5 nights to 10 p.m. and 1 night to 12 p.m., 50 cents to \$1.50 per month per lamp, according to wattage of lamps; burning same hours, 8½ cents per lamp per month for 4 c. p. 10-volt tungstens.	Sold on arc lamp hour basis, 500 watts per hour. First 32 hours per lamp burned per month, 6¼ cents per lamp hour; next 50 hours, 3¼ cents, and the balance, 2¼ cents.	-	Renewals of carbon lamps free; tungstens at customer's expense. For light, 13 cents, with discount of 1 cent if paid in 15 days and a minimum charge of \$12 net per year. Yearly lighting rate ranging from 13 to 9½ cents per k. w. h., according to monthly consumption, with same discounts. Demand wholesale rate \$50 per year per first 10 k. w. of demand and \$36 for next 40 k. w. of demand with prices for current ranging from 6 to 3¼ cents according to amount used per month, with discount of 1 cent per k. w. h. Prices for power 13 cents per k. w. h. for first 10 k. w. per h. p. of demand, and for current in excess, at the rate of 4.3 cents per k. w. h. to 1.9 cents per k. w. h., depending upon the k. w. h. consumed; and a discount from total bill of 1 cent per k. w. h. if bill is paid within 15 days from date of bill.	12	15
Huntington,	12 cents.	From 50 cents to \$4 per month.	-	-	Price for light by meter 12, 10 and 9 cents net. Meter rental 25 cents per month. Customers pay for wiring and renewals at cost.	12	15
Hyde Park,	15 cents.	-	One customer at \$70 per lamp per year from sunset to 12.30 A.M.	10 cents.	No free wiring; renewals: carbon lamps free; tungsten and special lamps at cost. For light, discounts from 10 to 50%, according to amount used, if paid in 10 days, with minimum monthly charge of \$1. For power, discounts from 5 to 60%, according to amount over 50 k. w. h. used per month, if paid in 15 days, with a minimum monthly charge of \$2.	13.5	13.5

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Area by Contract.			1911.	1910.
Lawrence,	14 cents.	-	Two nights per week, \$5 per lamp per month; 3 nights per week, \$6; 4 nights, \$7.50; 6 nights, \$8; 7 nights, \$9 per lamp per month.	10 cents.	Discounts on bills for incandescent lights and power, 10%, if paid by the 15th of the month. Wiring at customer's expense; carbon filament lamps free; tungstens at cost. Minimum monthly charge of \$1. Prices for light range from 14 to 8 cents, and for power from 10 to 2½ cents, according to amount used.	12.6	13.5
Lee,	20 cents.	75 cents per lamp per month.	-	20 cents.	Halls, churches, etc., 10 to 25% dis- count. Residences, \$3 net per month and 50% discount on all amounts in excess of \$3 per month. No free wiring or renewals.	20	20
Lenox,	20 cents.	-	-	-	Discount of 6% on bills of \$5 or more, and discount of 10% to certain cus- tomers. Minimum charge, 50 cents per month. No free wiring or re- newals.	20	20
Leominster,	18 cents.	Contract rates according to consumption and hours of burning. Special rates, 2 customers at 10 cents net, 1 at 16 to 12 cents, according to consump- tion; theatre lighting, 1 at 15 cents for first 20 k. w. h. per week, and 1 at 15 cents for first 30 k. w. h. per week, with 10	-	7½ cents.	Renewals at cost. No free wiring. Minimum monthly charge of \$1 to all whose net bills for the year aver- age less than that amount. For light, discount of 3 cents per k. w. h. for first 50 k. w. h. and 6 cents for all in excess used per month if paid in 10 days. For power, discount of 2½ cents for first 1,000 k. w. h. per month and 5 cents for all excess. Special rates for power, 1 with 6%	15	16

	cents for all k. w. h. in excess.				
Loveland, W. O. (Ashby).	18 cents.	1 16 c. p., \$1.25 per month; 22 c. p., \$1.50 per month; and every 22 c. p. added, 25 cents per month.	-	-	18
Lovell,	12 cents.	-	13 cents per k. w. h. for first 50 hours use of connected load, 6 cents for all over 50; \$1.66 per lamp per month minimum charge; discount of 10% if paid in 10 days.	11 cents.	18
					10.8
					10.8

discount additional to regular rate,
1 at 2 cents net, 1 at 2.7 cents net
and 1 at 24 cents net.

No free wiring. Meter rent, \$1 per
month. Meter prices: 20 k. w. h.,
18 cents; 40 k. w. h., 16 cents; 60
k. w. h., 14 cents; all over, at 12
cents.

Regular size metalized and carbon fila-
ment lamps free to meter customers
and at cost to contract customers.
Tungsten lamps free only when
customers pay rental of 20 cents per
lamp per month. For light in Lovell,
Tewksbury and No. Chelmsford, 12
cents per k. w. h. gross, \$12 per
year net, minimum for residence
lighting; demand system for stores
and factories, 13 cents per k. w. h.
for first 50 hours use of connected
load, and 6 cents for all additional
current used, with minimum charge
based on 25 hours use per month of
maximum demand of connected load.
In Billerica, Dracut and West
Chelmsford, 14 cents per k. w. h.
gross residence lighting, with \$12
per year net minimum. In Tyngs-
borough, 20 cents per k. w. h. of
maximum demand one hour per day;
6.6 cents per k. w. h. for all over
gross, with \$12 per net minimum.
All bills subject to 10% discount if
paid in 10 days. For power, 11
cents per k. w. h., with discounts for
quantity used ranging from 5 to
50%, with a monthly minimum
charge of \$1 net per h. p. for motors
of 5 h. p. and less; large consumers,

COMPANY.	Learning.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	Maximum Net Power per K. W. H. (Curve).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Arcs by Contract.			1911.	1910.
Lowell — Con., .	-	-	-	-	\$2 for first h. p. of maximum demand, and \$1.25 for each additional h. p. as minimum monthly bill and service charge, and 3 cents per k. w. h. for current consumed, with discounts ranging from 5 to 44%, according to maximum demand; all bills subject to 10% discount if paid in 10 days. Free renewals. Wiring at cost, plus 10%. Minimum charge, \$10 per year.	12	12
Ludlow, . . .	12 cents.	-	-	5 cents.	Renewals, carbon filament lamps free; tungstens at cost. For light, price 13 cents per k. w. h.; over 72 k. w. h. per month, 11 cents, over 285 k. w. h. per month, 9 cents, with discount of 1 cent per k. w. h. in each instance for payment in 10 days. For stores, price of 7 cents per k. w. h. for exceeding 2,400 k. w. h. per month, with discount of 1 cent per k. w. h. for prompt payment. For power, prices range from 6 to 8 cents per k. w. h., according to amount used, with discount of 1 cent per k. w. h. for prompt payment. Minimum monthly charge of 50 cents for light and \$3 for power.	12	12
Lynn, . . .	13 cents.	-	-	6 cents.			

Malden,	13 cents.	Based on 1 16 c. p. lamp hour equals 50 watt hours and primary hours equal first 10 to 50 hours (according to month) use of lamp per month; price for primary lamp hours per month, 16¢, cent, and for secondary lamp hours 16¢ cent. Discount of 1 cent per k. w. h. if paid in 15 days. Occasional service \$1 per lamp per month; \$2 for 8 c. p. and \$2.50 for 16 c. p. lamps per month all night. A few special contracts.	Based on are lamp hour equals 500 watt hours, and primary hours equal first 40 hours use of lamp per month; price for primary lamp hours per month, 6.5 cents, and 3½ cents for all secondary hours, with discounts of 6% for 3 lamps, 10% for 4 or 5 lamps, and 15% for 6 or more lamps, with minimum charge of \$3 per month per lamp for 1 lamp, and of \$2 if 2 or more lamps are installed. Discount of 1 cent per k. w. h. if paid in 15 days. A few special contracts.	4.5 cents.	Customers pay for wiring, renewals free for carbon lamps; tungstens at customer's expense. For residence lighting, 13 cents per k. w. h., with discount of 1 cent per k. w. h. if paid in 15 days. For power, service charge of \$1.50 per h. p. per month, and prices for current range from 4½ to 1 cent, according to amount used. Minimum monthly charge for incandescent light, \$1 net. For tungsten window and sign lighting 5 nights to 10 p.m. and 1 night to 12 midnight, 20 c. p. 50 cents, 32 c. p. 65 cents, 48 c. p. 95 cents, 80 c. p. \$1.50 and 200 c. p. \$3.65, and low voltage 4 c. p. 8½ cents, per month.	12	13
Manchester,	25 cents.	-	-	25 cents.	Summer customers, 25 cents; customers for eleven months or more, 15 cents. Minimum monthly charge of 15 cents per light for summer customers, and 10 cents for others.	25	25
Marlborough,	15 cents.	-	-	12 cents.	Customers pay for wiring, renewals of carbon lamps free. For light, demand system, based on 520 primary hours per year; primary rate, 15 cents per k. w. h.; secondary rate, 12 cents per k. w. h.; if customer guarantees for 1 year a monthly minimum bill equal to primary usage each month, primary hours are reduced to 400 per year. Minimum monthly charge of \$1. For power, 12 cents per k. w. h. for first 25 hours use per month of maxi-	15	15

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PAID FOR K. W. H. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Aras by Contract.			1911.	1910.
Marlborough — Con., .	-	-	-	-	<p>mum demand; for second 25 hours use, 6 cents; and for all current in excess 3 cents, with a discount of 33 1/3% on the excess of all monthly bills figured as above over \$20. If current for both light and power is furnished between 6 a.m. and 6.45 p.m., a special schedule is offered, with base prices of 10 and 4 cents respectively.</p> <p>Minimum charge of \$1.50 per month. For summer residents price for light and power is 25 cents, and for yearly residents, 20 cents, per k. w. h.</p> <p>Lamp renewals at cost; no free wiring. Minimum monthly charge of \$1 to consumers whose net bills average less than that amount during the year.</p> <p>For light, discount, if paid in 10 days, of 2 cents per k. w. h. for first 15 k. w. h. per month, and of 10 cents for all exceeding 15 k. w. h. Three special rate customers at 10 cents net. For power, discount of 5 cents per k. w. h. if paid in 10 days.</p> <p>For light, discount, 25% if paid in 10 days. For power, discounts of 33 to 70%, according to amount used per month. No free wiring. No free renewals. Meter rent, 25 cents per [month.</p>	25	-
Middleton, . . .	25 cents, .	-	-	25 cents, .		18	19
Milford, . . .	20 cents, .	-	-	10 cents, .			
Mill River (Williams- burg).	20 cents, .	-	-	10 cents, .		15	15

Montague, .	15 cents, .	-	-	-	15 cents, .	No lamp renewals. No free wiring. Minimum charge of \$10 per year and 20 cents per month meter rent. No free wiring or renewals. Minimum monthly charge of \$1. Churches, 12 cents. Discount on all bills for light or power for payment on or before the 10th of the month, 5%. Minimum monthly charge of 75 cents. Renewals free. Prices for light range from 13 to 3½ cents, according to amount used. For power, first 15 k. w. h. per h. p. of demand 10 cents per k. w. h.; next 200 k. w. h., 5 cents; next 200 k. w. h., 4 cents; next 100 k. w. h., 3 cents, and all over, 2½ cents. Mattapoisett lights at 25 cents per k. w. h., less 20% if paid by 10th of month.	15	15
Nashua River Paper Corporation (E. Peppereil), .	15½ cents, .	-	-	-	-	No free wiring or renewals. Minimum monthly charge of \$1.	15.5	15.5
New Bedford, .	13 cents, .	-	-	-	10 cents, .	Discount on all bills for light or power for payment on or before the 10th of the month, 5%. Minimum monthly charge of 75 cents. Renewals free. Prices for light range from 13 to 3½ cents, according to amount used. For power, first 15 k. w. h. per h. p. of demand 10 cents per k. w. h.; next 200 k. w. h., 5 cents; next 200 k. w. h., 4 cents; next 100 k. w. h., 3 cents, and all over, 2½ cents. Mattapoisett lights at 25 cents per k. w. h., less 20% if paid by 10th of month.	12.35	13.3
Newburyport, .	18 cents, .	-	-	-	10 cents, .	Discount of 4 cents per k. w. h. from price for light, if paid in 12 days. Discounts on power, 10 to 65%, according to amount used. One customer allowed discount of 7½% for power. Renewals at cost. Minimum monthly charge of \$1 for light, and \$1 per h. p. for motors.	14	15
Niles Estate (Boston), .	10 cents, .	-	-	-	10 cents, .	Minimum charge of \$1 per month for not more than 4 16 c. p. lamps. By meter at 10 cents per k. w. h., subject to a discount according to amount of consumption. Renewals free.	10	10
North Adams, .	15 cents, .	-	-	-	5 cents, .	Renewals free. No free wiring. Minimum monthly charge of \$1 to users of less than 1 k. w. h., but rebated if annual consumption amounts to \$12.	12.5	13.5

COMPANY.	Lampings.			Power.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Area by Contract.	Maximum Rates by Meter per Kilowatt Hour.		1911.	1910.
North Adams — Con.,	-	-	-	-	For light, 15 cents per k. w. h., with discounts, if paid in 10 days, of 2½ cents per k. w. h. for first 15 k. w. h. per month, and 7 cents per k. w. h. for all in excess of 15 k. w. h. For power, 5 cents per k. w. h., with a discount of 1 cent per k. w. h. on first 2,000 k. w. h. per month, and 3 cents on all in excess thereof if paid in 10 days. Special rates to certain large consumers.		
Northampton, . . .	18 cents.	According to consumption and hours of burning.	-	10 cents.	Lamp renewals at cost. For light, first 15 k. w. h. per month, discount of 4 cents per k. w. h.; over 15 k. w. h., discount of 8 cents per k. w. h., less 50% if paid in 10 days. Minimum charge of \$1 per month. Discount on power, 33 to 70% according to consumption, if paid in 10 days, and a service charge additional of \$1 per month for 1 h. p., \$1.50 for ½ h. p., \$2 for 1 h. p., \$3 for 2 h. p., \$3.50 for 3 h. p. and \$1 per h. p. for over 3 h. p. Special rates for lighting, 3 at 9 cents net and 1 at 10 cents net. Special rates for power, 1 at 4½ cents net and 1 at 2 cents net. Automobile charging stations, public 5 cents net and private 6 cents net.	14	15

COMPANY.	LIGHTING.			POWER.	REMARKS (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Aves by Contract.			1911.	1910.
Pittsfield — Con.,	-	-	-	-	to 20 h. p.; and of \$90 from 20 to 40 h. p.; and a meter rent of 50 cents per month to customers owning motors if meter does not register 10 k. w. h. Wholesale rate for power, 2 cents.		
Plymouth,	18 cents.	\$1 per lamp per month for 16 c. p. lamp.	-	10 cents.	Wiring at customer's expense. Renewals free. For light, 18 cents per k. w. h. for current up to 100 k. w. h. per month; for next 100 k. w. h., 13 cents; and for all additional, 10 cents; with a discount of 10% to "A" customers having a large number of lights but small or infrequent use of them, and 20% to "B" customers who use their lights practically every night in the week, if paid by 10th of month, and minimum monthly charge of \$1. For power prices range from 10 to 3 cents, according to amount used per month. Renewals of standard carbon filament lamps free. Wiring at customer's expense. Discounts on light for payment within 15 days; on monthly bills of more than the minimum and less than \$20, 25%; \$20 or more and less than \$40, 30%; \$40 or more and less than \$60, 35%;	16.2	16.2
Quincy,	20 cents.	-	By contract \$50 per year for each multiple enclosed are 6.6 amperes every night from dusk until 11 P.M.	10 cents.		15	15

Randolph,	13 cents.	\$1 per month for 16 c. p. lamps to midnight; all-night lamps \$1.10 per month.	-	13 cents.	<p>\$80 or more and less than \$80, 40%; \$80 or more and less than \$100, 45%; \$100 and over, 50%; with a minimum monthly charge of \$1 for installations of less than 40 lights, and \$3 for 40 lights or over. Discounts on power from 5% to 60%, according to amount used, when bill is for more than 50 k. w. h.; with a discount of 10% on all monthly bills up to 850 k. w. h., and of 15% on bills of 850 k. w. h. or more, if paid within 15 days. Minimum monthly charge of \$2 for power.</p> <p>Customer pays for wiring. No free renewals. Minimum monthly charge of \$1. Meter rental \$2 per year. For power, prices range from 13 to 8 cents, according to amount used and conditions under which used.</p> <p>Renewals free of carbon lamps; metallic filament lamps at customer's expense. Wiring at cost. For light, discount of 2 cents if paid in 10 days. For power, small motors, 2 to 10 cents per k. w. h. by meter; 10% discount for payment in 10 days, and discounts ranging from 2 to 40%, based on load factor; constant service all day, \$50 to \$75 per h. p. per year subject to 5% discount if paid within 10 days. Minimum monthly charge of 50 cents for incandescent lighting, \$1 for arc and Nernst lights and \$1 per k. w. of demand for power.</p>	13	13
Salem,	15 cents.	By contract 16 c. p. lamps all night and every night, \$2.50 per month; 60-watt tungstens, 90 cents per month for 6 nights per week to 11 p.m.; and 100-watt tungstens, \$1.50 per month same burning.	Enclosed arcs and multiple glow Nernst lamps by meter only at 15 cents per k. w. h., less 5 cents for prompt payment.	10 cents.		13	13

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NEW PRICES PER K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Ares by Contract.			1911.	1910.
Shelburne Falls,	15 cents, .	-	-	6 cents, .	No free wiring. Renewals of carbon and gem filament lamps free. For light, prices range from 15 to 8 cents per k. w. h., according to monthly consumption. For power, prices range from 6 to 1.8 cents, according to monthly consumption; with minimum monthly charge of \$1.50 up to 3 h. p. and of 50 cents per h. p. connected for all over 3 h. p. Wiring at cost and renewals free. Discounts for prompt payment allowed on monthly bills, both for light and power, ranging from 5 to 50%, according to amount of bill. Minimum charge of 50 cents per month.	15	15
South Hadley Falls,	15 cents, .	Special rates, according to amount used.	-	10 cents, .	Minimum charge of \$1 per month. Renewals at cost. Discounts if paid in 10 days, as follows: first 100 k. w. h. per month, 25%; all over 100, 40%.	14.25	14.25
Spencer,	20 cents, .	-	-	-	Free renewals of carbon lamps. Minimum charge of \$1 per month per meter. Discount of 15% on light bills if paid by 15th of month. Prices for power range from 10 to 6 cents, according to amount used.	15	15
Stockbridge,	20 cents, .	-	-	10 cents, .		17	17

Suburban (Revere).	14 cents.	By contract 8½ cents to \$1.61 per month, according to hours burned and size of lamp.	\$10 per lamp per month.	4½ cents.	Renewals to yearly customers free; to others at cost. Minimum monthly charge of \$1 with annual adjustment, so that amount paid shall not exceed \$12 per year unless consumption exceeds that amount. For light, discount of 1 cent per k. w. h. if paid in 15 days; for a guaranteed consumption of not less than 30,000 k. w. h. per year, for first 30,000 k. w. h. 7 cents; for next 10,000 k. w. h. 6.5 cents; for all over 40,000 k. w. h. 5 cents; and a flat price of 5 cents if more than 100,000 k. w. h. are used in a year; also a demand rate of \$5 per month per k. w. of connected load with a guaranty of a minimum term of 4 consecutive months' service, or \$20, and 8 cents per k. w. h. for first 300 k. w. h., 7 cents for next 600 k. w. h., and 6 cents for all in excess per month. Tungsten sign and window lighting, 5-watt lamp, 8½ cents; 25-watt, 50 cents; 40-watt, 65 cents; 60-watt, 95 cents; 100-watt, \$1.50, and 250-watt, \$3.65 per month. For power, a service charge of \$1.50 per month per h. p., and prices for electricity ranging from 4½ cents to 1 cent per k. w. h., according to amount consumed.	13	15
Sunderland,	20 cents.	\$10 per year.	-	-	Wiring and renewals at cost. Minimum charge 75 cents per month.	20	
Turner, G. H. (Charle- mont).	-	25 cents a month for each 16 c. p. lamp on an average use of 4 hours per day.	-	-	Renewals 25 cents each. No free wiring.	-	
Tyngsboro,	15 cents.	-	-	-	Minimum monthly charge of \$1. No free wiring or renewals.	15	

COMPANY.	LIGHTING.			REMARKS (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICE PER K. W. H. (CENTS).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Area by Contract.		1911.	1910.
Union (Franklin).	16½ cents.	Flat rate 1 60-watt lamp or less \$1; 2 60-watt lamps or less, \$1.75; 87½ cents for each additional 60-watt lamp; 1 120-watt lamp or less, \$1.75, and for each additional 120-watt lamp \$1.75 per month, with discount of 5% for prompt payment on all bills over \$1.	-	Wiring at customer's expense. Renewals free. Minimum monthly charge of \$1. Discount of 10% on bills for light if paid in 10 days. Also demand rate of \$4 per month per k. w. of connected load plus 7 cents per k. w. h., with discounts of 5 to 30% based on connected capacity. For power, 2½ cents per k. w. h. consumed, and \$2.25 per h. p. per month, less discounts of 15 to 40% based on maximum demand, and 10% discount for prompt payment. Renewals free. No free incandescent wiring. For light, rates are 12 cents and 8 cents, based on demand system; for consumers using their capacity long hours, from 10 to 4 cents per k. w. h.; for term contracts, 4, 5 and 6 cents. Minimum charge of \$8 per year for lights where meter is maintained. For power, prices for current consumed range from 5 to 3 cents, according to h. p. of motors, with a minimum charge of \$20 per h. p. per year. Customers pay for wiring and renewals. A minimum charge of 7½ cents per month. Discounts on lighting bills from 10 to 50%, according to	15	15
United (Springfield).	12 cents.	\$1 per 16 c. p. lamp per month.	-		12	15
Vineyard (Oak Bluffs).	30 cents.	-	-		27	27

Ware,	20 cents, .	16 c. p. lamp, \$8, \$10 and \$12 per year.	-	-	8 cents, .	20	20
Webster,	15 cents, .	\$10 per lamp per year, .	-	-	6 cents, .	13.5	15
Westborough,	18 cents, .	-	\$70.55 per light per year.	-	18 cents, .	18	20

amount of bill and varying with the season of the year, and the promptness of payment. Also a demand rate based on connected load of 34 cents per watt per month for first 25 watts, 24 cents for next 50 watts and 14 cents for all over 75 watts of demand. Minimum season charge of 30 cents for each 25-watt unit connected; and this must amount on demand basis to \$9, and on watt hour basis, with 3 months use guaranteed, to \$12. Special price to street railway company.

Wiring at cost; renewals at 15 cents each. Discounts on incandescent lights by meter; on bills of \$5 and under \$10, 10%; on bills of \$10 and under \$15, 20%; \$15 and under \$20, 25%; \$20 to \$30, 30%; \$30 to \$75, 40%; \$75 to \$100, 50%; over \$100, 60%. Minimum monthly charge of 50 cents. For power, 8 cents for intermittent and 4 cents for constant power per k. w. h.

For light, prices range from 15 to 6 cents, according to amount of monthly consumption, with discount of 10% for payment by 10th of month. For power, prices range from 6 to 1.8 cents, according to amount used, with 10% discount if paid by 10th of month. Guarantee of \$10 per year. Wiring at cost; renewals free.

Wiring at cost; renewal of carbon lamps free. Minimum monthly charge of \$1. For light, demand rate of 18 cents per k. w. h. for 520 primary hours use of demand per

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt per Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICES PER K. W. H. (CENTS).	
	Maximum Rates by Meter per Hour.	Incandescents by Contract.	Aras by Contract.			1911.	1910.
Westborough — Con.,.	-	-	-	-	year, and 15 cents for all secondary k. w. h.; and for a guaranteed yearly use of demand, primary rate of 20 cents per k. w. h. for 400 hours use of demand per year and 6 cents for all secondary k. w. h. For power, the same prices as for lighting, but for customers for both light and power on circuits operated from 6 a.m. to 6.45 p.m. only lighting prices range from 16 to 7 cents and for power from 10 to 3 cents per k. w. h., according to amount used per month. No free wiring. Renewal of carbon lamps free. Minimum monthly charge of \$1. For light for residences, 15 cents per k. w. h., and for churches, stores and factories, 12 cents, with a discount of 10% on second \$100 per year of all bills; 15% on third \$100 and 20% on all over \$300. For power, the same price as for commercial incandescent lights.	15	15
Weston, . . .	15 cents, .	-	-	15 cents, .	Consumers pay for wiring; renewals at cost. Meter rent 10 cents per month. Minimum charge of \$12 per year, which includes rent of meter. For power, prices range from 16 to 3 cents, according to size of motor.	15	15
Weymouth, . . .	15 cents, .	-	-	15 cents, .			

Williamstown, . . .	15 cents. .	On contract according to consumption and hours of burning.	-	5 cents. .	For 24 hour service power and light over 60,000 k. w. h. per year, 3.8 to 4.1 cents measured on secondary and 4.3 cents measured on primary, per k. w. h. Discount on all lighting bills paid by 10th of month for first 15 k. w. h., 1½ cents, and all over 15 k. w. h., 7 cents per k. w. h. Discount on power bills of 1 cent per k. w. h. if paid in 10 days. Minimum monthly charge of \$1, to consumers whose net bills average less than that amount during the year. Renewals free.	13.5	13.5
Winchendon, . . .	20 cents. .	16 c. p. lamp burning 6 nights a week, \$1 per month; 8 c. p. lamp, 75 cents per month.	Commercial arc lamps on meter, 11 cents per k. w. h.	10 cents. .	Wiring and renewals at nearly cost. Incandescent monthly bills up to 5 k. w. h., 20 cents; next 20 k. w. h., 18 cents; next 25 k. w. h., 14 cents; next 50 k. w. h., 9 cents; next 100 k. w. h., 8 cents; all over 200 k. w. h., 7 cents per k. w. h. Minimum monthly charge of 50 cents. For power, prices range from 10 to 2 cents, according to amount used. Renewals free for all but Masda lamps. For light, prices range from 12 to 4 cents, according to current consumed, with a minimum monthly charge of 10 cents per lamp connected in shops and factories, and of \$1 for residences. Price in Leicester for light, 20 cents per k. w. h., with a discount of 25% if paid in 10 days. For power, prices range from 6 to 2 cents, according to amount used, with a minimum charge of \$1 per h. p. per month.	20	20
Worcester, . . .	12 cents. .	-	Burning until 6 P.M., 30 cents per lamp per night; until 10 P.M., 40 cents; until 12 P.M., 50 cents.	6 cents. .	Renewals free for all but Masda lamps. For light, prices range from 12 to 4 cents, according to current consumed, with a minimum monthly charge of 10 cents per lamp connected in shops and factories, and of \$1 for residences. Price in Leicester for light, 20 cents per k. w. h., with a discount of 25% if paid in 10 days. For power, prices range from 6 to 2 cents, according to amount used, with a minimum charge of \$1 per h. p. per month.	12	12

COMPANY.	LIGHTING.			Power. Maximum Rates by Meter per Kilowatt Hour.	Remarks (Discounts, Minimum Charges, etc.).	MAXIMUM NET PRICES PER K. W. H. (Cents).	
	Maximum Rates by Meter per Kilowatt Hour.	Incandescents by Contract.	Area by Contract.			1911.	1910.
Worcester (Suburban),	16 cents, .	\$9 per 16 c. p. lamp per year for 5 or less lamps to 9 p.m.; \$12 to 12 p.m.; \$15 for all night; with 10% discount for 7 nights; and also 10% discount for 6 to 10 lamps, 15% for 11 to 15 lamps, and 20% for 16 to 20 lamps.	-	6 cents, .	Renewals of carbon lamps free; tung- stens at cost. Minimum charge of \$12 per year, payable monthly and adjusted annually. For light, for 520 hours primary use per year of customer's demand, 16 cents, and 12 cents for all secondary usage per k. w. h., with minimum monthly charge of \$1. If customer guarantees 400 hours use of demand per year, all secondary usage is 9 cents per k. w. h. For power, prices range from 6 to 1.4 cents per k. w. h., with dis- counts of 5% on bills from \$10 to \$100, and 10% on bills over \$100 per month, if paid in 15 days; also a demand rate with price of 12 cents for 25 hours use per month of demand, 6 cents for next 50 hours' use, and 3 cents for all in excess, with 33 1/3% discount on monthly bills over \$20.	16	20

The following table shows the number of *public* electric lamps of each candle-power in use June 30, 1911, and the price paid, also the average number in use during the year ending on that date with the average number of hours per night, and nights per month, that they were run:—

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Abington,	201	40	201	5.5	28.5	{ \$14.68 per year. \$21.85 per year. \$51.30 per year. \$65.55 per year. \$20 per year. \$23.33 per year. \$16 per year. \$15.75 per year. \$23.20 per year. \$49 per year. \$20 per year.
Abington and Rockland,	6	100	201			{ Five-year contract.
Cohasset,	17	250	24			
Hanover,	311	415	307	6.1	26.5	
Norwell,	27	100	27	4.8	27.0	
Rockland,	32	100	31	4.8	27.0	
Seituate,	343	40	331	5.5	28.5	{ One-year contract.
	14	100	13			
	5	415	3	6.1	26.5	
Adams,	80	50	79	10.6	30.4	{ \$25 per year. \$80 per year.
Adams, U. S. (Townsend),	86	325	86	3.8	24.7	{ \$12.50 per year. \$16 per year. \$75 per year.
American Woolen Co. (Maynard),	67	87½	66			
	140	50	139	6.5	27.8	
	13	360	15			
Amesbury,	315	40	313	6.1	28.2	{ \$17.50 per year. \$75 per year. \$24.12 per year. \$103.68 per year.
	26	462	26			
	18	40	18	8.0	29.4	
	13	462	13			
Amherst,	216	50	169	5.1	27.5	{ \$15 per year. \$65 per year, 1 free for franchise. 13 lamps to the mile, \$17 per lamp; 16 lamps to the mile, \$15 per lamp.
Hatfield,	32	425	33			
	203	50	128	5.1	27.5	

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Nights per Month.	Price Paid.
{ Athol, . . . Erving, . . . Orange, . . . Wendell, . . . }	{ 227 100 17 96 43 2 }	{ 50 75 50 50 550 50 }	{ 321 15 96 43 2 }	{ 10.7 5.9 6.5 6.0 }	{ \$20 per year. \$23 per year. \$20 per year. \$20 per year. \$20 per year. }
	{ 5 389 115 20 131 6 6 }	{ 500 50 500 56 40 480 50 }	{ 5 338 114 20 129 6 6 }	{ 3.7 6.4 10.0 5.6 13.4 }	{ \$36 per year. \$17.50 per year. \$70 per year. \$20 per year. \$16.50 per year. \$75 per year. \$18.50 per year. }
	{ 73 80 6 365 29 }	{ 80 50 75 375 50 }	{ 73 40 364 29 }	{ 4.9 10.6 5.5 }	{ \$12 per year. \$21.25 per year. \$30 per year. \$85 per year. \$25.30 per year. }
	{ 51 34 32 }	{ 40 320 90 }	{ 48 35 32 }	{ 10.8 5.8 }	{ \$30 per year. \$130 per year. }
Blackstone, . . .	231	31	189	5.2	\$18 per year; 2 lights free.
Bridges, J. B. & Co. (So. Deerfield),					\$1.50 each, per month, every night until midnight during June, July, August and September; balance of year, moonlight schedule.
Buzzards Bay (Falmouth),					
Cambridge, . . .	{ 505 102 668 }	{ 50 75 450 }	{ 590 661 }	{ 10.7 10.2 }	{ \$25 per year. \$90 per year. }
	{ 2 30 86 }	{ 531 110 40 }	{ 116 }		\$15 per year.
Cape (Provincetown), . . .					

Central Mass.,	Baldertown,	7	40	7	5.6	26.3	\$20 per year.
	Monson,	143	50	143	5.6	26.3	\$15 per year.
	Palmer,	177	40	177	5.6	26.3	{ \$15 per year.
	Warren,	152	306	38	5.6	26.3	{ \$75 per year.
	Wilbraham,	49	306	9	5.6	26.3	{ \$15 per year.
Charlestown,		276	500	44	5.6	26.3	{ \$15 per year.
	Chester,	31	25	272	10.6	30.4	25.3 cents per light per night.
Citizens' (Nantucket),		6	40	36	4.1	25.2	{ \$12.50 per year.
		65	40	99	4.4	25.6	{ \$16.50 per year.
		43	50	28	4.4	25.6	{ \$15 per year.
Clinton,		29	490				{ \$72 per year.
	Clinton,	163	40	258	10.0	30.4	{ \$27.74 per year.
	Lancaster,	36	50	58	5.7	30.4	{ \$114.43 per year.
Colrain,		90	80	178	5.3	30.4	{ \$20 per year.
	Deerfield River (Conway),	49	50	13	5.3	30.4	\$5 per year.
	Easthampton,	179	100	43	7.8	30.4	{ \$12.50 per year.
Edison (Boston),		13	43	48	4.8	26.3	{ \$19 per year.
		52	75	45	4.8	26.3	{ \$67.50 per year.
		45	475	16	9.8	30.4	{ \$100 per year.
Arlington,		16	475				{ \$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		258	50	259			{ \$12 per year, fixed cost, running cost, $\frac{1}{10}$ cent per lamp hour.
		19	75		6.6	30.4	{ \$14 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
Edison (Boston),		3	100				{ \$18 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
		6	150				{ \$36 per year, fixed cost; running cost, $\frac{1}{10}$ cents per lamp hour.
		82	425	85			

Ten-year con-
tract.¹¹ When agreements are made for a longer period than one year, a discount of 1 per cent. per year from the prices stated is allowed for each year up to 10.

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Ashland, . . .	77	50	76	7.0	30.4	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour. Ten-year contract. ¹
Bedford, . . .	7	125				\$18 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
Bellingham, . . .	105	50	103	5.5	25.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour. Ten-year contract. ¹
	33	50	33	5.1	26.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour. Ten-year contract. ¹
	439	50				\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
	813	75	1,192			\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
	1	100				\$14 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
Boston, . . .	125	500		10.5	30.4	Gilbert arcs, fixed cost, \$36 per year; running cost, $1\frac{1}{10}$ cents per lamp hour. Five-year contract. ¹
	3,593	530	3,691			Magnetite arcs, fixed cost, \$42 per year; running cost, $1\frac{1}{10}$ cents per lamp hour.
	30	530				Thoran arcs, fixed cost, \$42 per year; running cost, $3\frac{1}{10}$ cents per lamp hour.
	1	50				\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
	9	75	5			\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
Brookline, . . .	264	530	262	10.5	30.4	Magnetite arcs, fixed cost, \$42 per year; running cost, $1\frac{1}{10}$ cents per lamp hour. Ten-year contract. ¹
Burlington, . . .	25	50	25	4.6	11.0	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour. Ten-year contract. ¹

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.	
Hopkinton,	168	50	166	5.2	26.1	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Ten-year contract. ¹	
Lexington,	424	50				cost, $\frac{1}{4}$ cent per lamp hour.	Ten-year contract. ¹
Lincoln,	27	75	446	5.5	25.8	\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.	
Medfield,	81	50	80	9.4	28.7	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Ten-year contract. ¹	
Medway,	175	50	175	4.8	26.6	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Three-year contract. ¹	
Millia,	286	50	283	5.1	26.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Ten-year contract. ¹	
Milton,	60	50	60	5.1	26.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Ten-year contract. ¹	
	759	75	758	10.1	30.4	\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour. Ten-year contract. ¹	
Natick,	208	50	201			\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour.	
	12	425	12	6.5	28.5	\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.	
Needham,	613	40	606			For 1,600 hours' burning, 400 lamps at \$15 each; excess over 400 lamps, \$13 each; additional hours at $\frac{1}{10}$ cent per hour.	
	6	425	6	5.6	27.7	Each arc lamp same price as 5 incandescents. Twenty-year contract, giving 20 per cent. discount from prices stated.	
	1,465	50				\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour.	Ten-year contract. ¹
	86	75	1,605			\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.	
	103	125		10.2	30.4	\$18 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.	
Newton,	107	530	130			Magnetite arcs, \$42 per year, fixed cost; running cost, $1\frac{1}{4}$ cents per lamp hour.	

Edison (Boston) — Con.	Norfolk,	97	50	97	5.1	26.9	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour. Ten-year contract. ¹
	Sharon,	261	50	258	5.0	25.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour. Ten-year contract. ¹
	Somerville,	4	50	725	10.5	30.4	\$15.50 per year, net.
		723	50	493			\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		494	425				\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
	Stoneham,	219	50	230	5.1	26.8	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		10	75				\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
		1	100				\$14 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
		1	125				\$18 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
		18	425				\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
	Walpole,	265	50	267	5.9	26.9	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		6	75				\$12 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
	Waltham,	538	50	530	10.3	30.4	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		164	425	164			\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
	Watertown,	609	50	596	10.2	30.4	\$10.80 per year, fixed cost; running cost, $\frac{1}{2}$ cent per lamp hour.
		50	425				\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
		1	500	49			Gilbert area, \$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.

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COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Wayland, .	50	50	50	5.1	27.7	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour.
Westwood, .	207	50	207	5.6	27.7	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour. Ten-year contract. ¹
Edison (Boston) — Con.	305	50	292	6.7	30.4	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour.
	1	100				\$14.40 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
	1	125				\$18 per year, fixed cost; running cost, $\frac{1}{10}$ cent per lamp hour.
	48	425				\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
Woburn, .	481	50	467	8.3	30.4	\$10.80 per year, fixed cost; running cost, $\frac{1}{4}$ cent per lamp hour.
	98	425	98			\$36 per year, fixed cost; running cost, $1\frac{1}{10}$ cents per lamp hour.
	79	40	73			\$16 per year.
	178	32	177			\$16 per year.
Avon, .	14	75	14	5.6	29.3	\$23 per year.
	888	50	817			\$16.55 per year.
	28	50	28			\$19.62 per year.
	286	430	288			\$85 per year.
Edison (Brook- ton).	96	32	91	5.6	29.3	\$16 per year.
	15	40	15			\$17 per year.
	117	32	115			102 lamps at \$16 per year each; 15 lamps at \$17 per year each.
	75	400	75			\$50 per year.
Stoughton, .	235	50	232	5.5	29.7	\$16.50 per year.
	25	430	26			\$69 per year.
	75	400	75			\$50 per year.
	235	50	232			\$16.50 per year.
Whitman, .	25	430	26	5.5	29.7	\$69 per year.
	75	400	75			\$50 per year.
	235	50	232			\$16.50 per year.
	25	430	26			\$69 per year.

Fall River, {	124	75	60	10.8	30.4	{ \$25 per year.
Fall River, {	856	375	852	10.7	30.4	{ 25 cents per light per night.
Somerset, .	150	50	147	10.9	30.4	{ \$20 per year.
Fitchburg, .	318	50	287	10.7	30.4	{ \$18.72 per year.
Fitchburg, .	337	430	336	10.9	30.4	{ \$86.40 per year.
Foxborough, .	94	50	137	5.8	27.9	{ \$17 per year.
Foxborough, .	53	75	75	10.7	30.4	{ \$16.66 per year.
Franklin (Turners Falls), .	6	40	89	10.7	30.4	{ \$24 per year.
Franklin (Turners Falls), .	85	75	16	7.2	29.3	{ \$82.50 per year.
Gardner, .	16	500	275	5.9	27.2	{ \$25 per year.
Gardner, .	294	75	6	5.7	27.3	{ \$75 per year.
Gardner, .	1	450	112	8.9	29.3	{ For first 104 lamps, \$15.38 each per year; all others, \$15.25 each per year; one arc free.
Essex, .	113	40	1	5.7	27.3	{ Incandescents: \$14.50 each per year for first 650 lamps; next 50, \$14.25 each; all others, \$14 each.
Essex, .	1	450	750	5.7	27.3	{ Arcs: first 80 lamps at \$80 each per year; next 15 lamps at \$79; next 15 lamps at \$78 each; all others at \$77 per lamp. Lamps burning until 1 A.M., \$70 each.
Gloucester, {	838	40	12	5.7	27.3	{ \$14.25 per year.
Gloucester, {	13	450	90	10.0	30.3	{ \$70 per year.
Gloucester, {	90	450	210	10.7	30.4	{ \$18.50 per year.
Rockport, .	237	32	8	10.7	30.4	{ \$30 per year.
Rockport, .	8	450	251	10.7	30.4	{ \$32 per year.
Great Barrington, .	202	50	100	10.6	30.4	{ \$78 per year.
Great Barrington, .	39	90	20	10.6	30.4	{ 3 lamps at \$26 each per year, and 3 lamps free; 1 lamp at \$25 per year; 48 lamps at \$20.80 each per year.
Deerfield, .	12	100	103	10.6	30.4	{ \$100 per year.
Greenfield, {	20	40	79	10.6	30.4	
Greenfield, {	115	60	30	10.6	30.4	
Greenfield, {	82	320	203	10.6	30.4	
Haverhill, .	55	50	30	10.6	30.4	
Haverhill, .	202	200	203	10.6	30.4	

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COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Huntington,	{ 1 29 }	1,200 ¹ 100	1 29	7.2 7.6	27.0 29.2	\$70 per year. \$15 per year.
Hyde Park,	{ 572 73 }	50 300	344 110	7.4	29.4	{ 540 tungsten lamps for \$715.38 per month; all additional tungstens are at \$16 each per year; 73 arcs for \$434.62 per month; all additional arcs at \$75 each per year.
Andover,	{ 204 8 29 }	32 50 480	210 29	6.4	29.5	{ \$16 per year. \$17 per year. \$70 per year.
Lawrence,	{ 608 218 336 18 }	50 310 480 510	610 179 365	10.8	30.4	{ \$20 per year. \$80 per year. \$90 per year.
Methuen,	{ 293 1 36 }	50 480 330	286 1	6.5	28.4	{ \$17 per year. \$70 per year.
North Andover,	{ 8 }	480	44	6.7	29.0	\$65 per year.
Lee and East Lee,	129	40	122	5.5	26.6	{ \$18 per year.
Lee,	17	40	17	13.1	30.4	
South Lee,	38	100	38	5.8	26.8	
Lenox,	20	40	20	5.5	26.6	\$20 per year.
Leominster,	{ 121 114 89 }	50 525 75	121 114 89	6.2	26.0	{ \$16 per year. \$73 per year. \$26.25 per year.
Lunenburg,	{ 1 1 }	525 50	33 33	9.5 5.5	30.4 30.4	{ \$105 per year. \$20 per year.

Loveland, W. O. (Ashby),		28	25	28	3.9	20.9	\$16 per year.
Lowell,	Billerica,	123	40	120	4.3	22.8	\$13.50 per year.
	Chelmsford Centre,	55	50	55	6.3	28.5	\$20 per year.
	Dracut,	122	50	122	10.8	30.4	\$23.25 per year.
	East Chelmsford,	10	50	10	10.7	30.4	\$22.25 per year.
	Lowell,	{	75	541	10.8	30.4	{ \$22.50 per year.
Ludlow,	North Chelmsford,	557	450	558			{ \$100 per year.
	North Tewksbury,	84	50	84	6.7	30.4	{ \$18 per year.
	West Chelmsford,	14	57½	14	6.7	30.4	{ \$18 per year.
	West Chelmsford,	32	50	30	6.7	30.4	{ \$20 per year.
	Ludlow, { Wilbraham,	210	67½	209	10.8	30.4	{ \$18 per year; 52 lights free.
Lynn,	Lynn,	15	67½	15	5.9	30.4	{ \$14.40 per year; 6 lights free.
	Lynn,	{	40	1,359	8.5	29.7	{ \$15 per year.
	Nahant,	346	562	346	10.8	30.4	{ \$91.25 per year.
	Nahant,	{	40	18	8.5	20.7	{ \$18 per year.
	Nahant,	{	495	49			{ \$73.50 per year.
Swampscott,	Saugus,	360	40	305	6.6	28.7	{ \$16 per year.
	Saugus,	{	495	36			{ \$67 per year.
	Swampscott,	{	40	96	8.5	20.7	{ \$17.50 per year.
	Swampscott,	{	495	119			{ \$73 per year.
	Swampscott,	{	50	650	5.5	28.4	{ \$15 per year.
Malden,	Everett,	150½	430	147	8.9	29.8	{ \$88 per year.
	Everett,	{	50	1,152	8.9	30.0	{ 123½ arcs and 1,167 incandescent lamps for \$2,824.28
	Malden,	23	50	23	10.8	30.4	{ per month; additional arcs, \$100 per year; in-
	Malden,	{	430	124			{ candelents, \$18.75 per year.
	Medford,	616	50	602	6.5	29.3	{ \$14.22 per year.
Melrose,	Medford,	171½	430	170	9.5	30.0	{ \$76.63 per year.
	Medford,	637	50	628	5.9	28.6	{ \$15 per year.
	Melrose,	62	430	62	8.9	29.8	{ \$74.25 per year.

1 Candle power.

COMPANY.	Number of Public Lamps.	Capacity in Water.	Average Daily Number.	Number of Hours per Month.	Number of Nights per Month.	PRICE PAID.
Berlin,	37	50	37	6.6	27.4	\$17.50 per year.
Fayetteville,	69	50	52	6.6	27.4	\$18 per year.
Marlborough,	380	50	645	6.9	30.0	\$17.50 per year.
Northborough,	270	75	114	6.6	27.4	\$16 per year.
Southborough,	137	50	130	6.6	27.4	116 lamps at \$15.75 each per year, and \$18 per year for 16 lamps; 5 free.
Southville and Cordaville,	137	50	64	6.6	27.4	\$18 per year.
Westborough,	64	50	82	6.6	27.7	{ \$17.80 per year. \$20.80 per year.
Hopedale,	122	50	182	6.7	30.4	\$22.50 per year.
Millford,	133	90	124	10.1	30.4	{ \$5,000 per year for 17 arcs and 134 incandescents; additional arcs, \$105 each per year; additional incandescents \$24 each per year.
Mill River (Williamsburg),	2	525	17	5.3	26.8	\$15 per year.
Montague,	88	112	87	4.8	21.0	\$5 per year.
N. R. Paper Co. (East Pepperell),	37	56	37	4.1	25.4	11 cents per k. w. hour.
183	40	183	129	6.8	20.0	{ 5 ³ / ₄ cents per night. \$2 per month.
Fairhaven,	125	40	5	11.0	30.4	7 cents per night.
Fairhaven Bridge,	6	250	20	10.9	30.4	{ \$25.55 per year. \$51.10 per year.
New Bedford,	5	40	307	9.8	29.5	\$97.56 per year; 4 park lights at 27 cents per night.
3	40	50	27	10.6	30.4	{ \$30 per year. \$90 per year.
New Bedford,	16	100	175	10.6	30.4	{ \$25 per year. \$80 per year.
324	375	50	215			
2	500	325				
Newburyport,	29	40	27	9.8	29.5	\$30 per year.
North Adams,	175	400	175	10.6	30.4	\$90 per year.
	54	50	50			\$25 per year.
	215	325	212			\$80 per year.

Northampton,	{ 58 318 69 9 5 48 }	{ 50 140 525 50 140 525 }	{ 308 67 12 48 }	{ 5.9 10.6 }	{ 30.4 30.4 }	{ \$19 per year. \$70 per year. \$28 per year. \$80 per year. }
North Dana (A. W. Mason),	{ 40 228 874 122 21 }	{ 88 40 40 450 500 }	{ 40 228 852 123 20 }	{ 5.0 5.9 10.4 }	{ 22.0 30.4 30.4 }	{ 40 lamps at \$50 per month. \$15.70 per year. \$16.40 per year. \$75.05 per year. \$113.05 per year. }
Pittsfield,	{ 28 173 203 3 }	{ 50 50 50 250 }	{ 27 172 205 }	{ 9.6 5.2 9.6 }	{ 29.5 28.7 29.5 }	{ \$21 per year. \$20 per year. \$21 per year. }
Plymouth,	{ 894 1 170 }	{ 40 250 425 }	{ 861 170 }	{ 10.3 }	{ 30.3 }	{ \$18.75 per year. \$40 per year. \$87.50 per year. }
Quincy,	{ 3 5 144 13 2 22 }	{ 40 55 87½ 175 263½ 430 }	{ 7 155 22 }	{ 4.7 4.7 }	{ 25.7 25.7 }	{ \$15 per year. 5 light cluster at \$80 per year. \$13.50 per year. \$25 per year. \$37.50 per year. }
Randolph,	{ 661 277 25 }	{ 75 425 488 }	{ 574 302 }	{ 10.8 }	{ 30.4 }	{ \$36.750 per year for 225 General Electric arcs, 25 Magnetite arcs and 700 incandescent lamps, addi- tional arcs, for 6.6 amperes \$91.20 each; for 6.6 ampere constant current Magnetite arcs, \$106.40 per lamp per year; each additional 75 watt Tung- sten lamp at \$21.11 per year; 2-50 watt multiple lamps \$9.12½ per lamp per annum until 12 o'clock. }
Salem,						

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Shelburne Falls, { Buckland, . Shelburne, .	{ 50 2 59 5	{ 40 250 40 250	50	10.9 10.9	30.3 30.3	{ \$16.20 per year. \$50 per year. \$16.20 per year. \$50 per year.
South Hadley { Chicopee, . Falls, { South Hadley, South Hadley Falls,	42 20 177	160 60 80	42 20 177	5.5 5.5 10.7	30.4 30.4 30.4	\$18 per year. \$17 per year. \$25 per year.
Spencer,	{ 186 24	50 400	186 24	5.2	27.1	\$5,076 per year for 24 arcs and 186 incandescents; additional arcs \$75 each per year; additional in- candescents \$18 each per year.
Stockbridge,	{ 159 7	40 75	157	4.3	26.4	{ \$15 per year for each 32 c. p. from pole lines. \$27 per year for each 32 c. p. from underground system. 25 cents per month extra for each 60 c. p. lamp.
Suburban, { Revere, . Winthrop, .	{ 297 133 270 79	50 430 50 430	273 137 255 80	8.9 8.9	29.8 29.8	{ \$19.30 per year. \$88 per year. \$19.30 per year. \$88 per year.
Sunderland,	21	50	21	4.3	20.8	\$15 per year.
Turner, G. H. (Charlemont),	41	60	41	9.2	30.4	{ 38 lights at \$10 each per year. 3 lights at \$8 each per year.
Tyngsborough,	57	40	49	6.7	28.2	\$10 per year.
Union, { Bellingham, . Franklin, .	{ 44 46 241	75 40 50	44 79 241	6.5 6.5	30.4 30.4	\$16 per year. \$16 per year. \$16 per year.

United (Springfield),	Agawam,	7	100	7	10.8	30.4	\$15 per year.
	Ludlow,	1	400	1	10.8	30.4	\$71.50 per year.
Vineyard (Oak Bluffs),	Springfield,	{ 263 1,217	{ 100 400	{ 225 1,190	10.8	30.4	{ \$15 per year; \$20 per year if from underground lines for incandescents. \$71.50 per year for arc lamps on overhead lines. \$83 per year for arc lamps on underground lines.
	West Springfield,	{ 314 34	{ 100 400	{ 314 34	10.8	30.4	{ \$15 per year. \$71.50 per year.
Ware,	Edgartown,	{ 42 108	{ 32 31	41	9.8	25.5	\$22.80 per year.
	Oak Bluffs,	{ 24 84 15	{ 40 60 250	167	5.0	27.1	{ \$18 per year. \$9 per month for 4 months. \$18 per year.
Webster,	Vineyard Haven,	21	32	21	5.0	27.1	{ \$18 per year.
	Hardwick,	{ 32 9	{ 50 475	{ 30 10	4.8	25.9	{ \$18.75 per year. \$75 per year.
Weston,	Ware,	{ 32 63	{ 50 475	{ 29 63	8.5	29.6	{ \$24 per year. \$89.21 per year.
	Dudley,	{ 127 166	{ 50 475	{ 125 4	6.4	30.4	{ \$13.30 per year. \$66.25 per year.
Webster,	Oxford,	{ 36	{ 75	197	5.4	25.0	{ \$12.25 per year. \$14.15 per year.
	Southbridge,	{ 238 12	{ 50 100	{ 246 63	10.4	30.4	{ \$17.77 per year. \$26.72 per year.
Weston,	Sturbridge,	{ 80	50	80	6.4	25.0	{ \$93.39 per year. \$12.35 per year.
	Webster,	{ 115 84	{ 50 475	{ 110 84	10.4	30.4	{ \$17.77 per year. \$93.29 per year.
Weston,	Sudbury,	83	50	83	5.7	27.2	\$12.50 per year.
	Wayland,	76	50	74	5.6	26.9	\$12.50 per year.
Weston,	Weston,	438	50	436	5.6	26.9	\$12.50 per year.

COMPANY.	Number of Public Lamps.	Capacity in Watts.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.	PRICE PAID.
Weymouth,	{ 414 23 69 37 }	{ 40 482 50 325 }	{ 377 29 68 36 }	{ 6.6 7.5 }	{ 25.8 30.4 }	{ \$17 per year. \$70 per year. \$18 per year. \$65.70 per year. }
Williamstown,						
Winchendon,	{ 54 114 15 2 }	{ 50 87 400 600 }	{ 166 17 }	4.9	26.2	{ \$15 per year. \$75 per year. }
Worcester, { Leicester,	{ 204 309 919 }	{ 50 75 400 }	{ 204 159 890 }	{ 5.6 10.8 }	{ 30.4 30.4 }	{ \$18 per year. \$23.50 per year. \$91.25 per year. }
Worcester, { Worcester,						
Douglas,	{ 111 243 }	{ 40 40 }	{ 111 233 }	{ 4.9 4.9 }	{ 26.0 25.5 }	{ \$13.50 per year. \$13.50 per year. Five-year contract from April 1, 1908. }
Grafton,						
Millbury,	{ 118 86 1 }	{ 40 75 450 }	{ 199 1 }	4.9	27.0	{ \$13.50 per year. \$16.50 per year. } Ten-year contract from June 1, 1911.
Northbridge (Rockdale),	{ 80 6 }	{ 40 75 }	85	5.1	25.6	\$13.50 per year. Five-year contract from May 1, 1909.
Northbridge (Whitinsville),	{ 236 6 }	{ 40 75 }	241	5.8	26.3	{ \$14.50 per year. \$17.50 per year. } Five-year contract from May 1, 1909.
Sutton (Center),	65	40	65	5.0	27.3	\$14 per year. Five-year contract from Oct. 1, 1908.
Sutton (Manchester),	35	40	35	4.9	26.0	\$14 per year. Five-year contract from Jan. 1, 1907.
Sutton (Wilkinsonville),	21	40	21	4.9	25.5	\$13.50 per year. Five-year contract from April 1, 1909.
Upton,	100	75	100	5.0	25.7	\$16.50 per year. Three-year contract from Dec. 1, 1906.
Uxbridge,	{ 160 35 }	{ 40 75 }	195	5.9	27.5	{ \$15 per year. \$18.25 per year. } Five-year contract from Oct. 1, 1910.

MUNICIPAL OWNERSHIP.

Official replies to inquiries relative to action about a municipal gas or electric lighting plant have been received from 187 towns and cities, including all the cities and substantially all the towns in which the population exceeds 1,500 and in which no such action has previously been taken. Except as stated on pages 172-174, following, none of these have taken action during the year.

Pages 166-171 contain a tabular statement intended to show briefly all action within the State in respect to the municipal ownership of gas or electric light plants prior to 1911. The pages following contain carefully prepared abstracts from the reports of town officers showing, in two sections, the history of this subject during the last calendar year. The first section (pages 172-174) exhibits the action of those towns which are not engaged in the lighting business, but have during the year considered propositions to undertake it. The second section relating to municipal plants in actual operation contains two parts: the first part (pages 174-205) setting forth certain financial data relative to the preceding municipal fiscal year, with the estimates and appropriations of the current fiscal year, taken from information furnished the Board by various town officers, and the second part (pages 206-225) setting forth certain general financial and physical data relative to the plants from the returns made to the Board as of June 30, 1911. In Appendix C will be found, under date of June 30, 1911, the separate balance sheets, profit and loss and manufacturing accounts from the annual returns of the different municipalities. Appendix F contains detailed statistics relative to the municipal plants, compiled from the annual returns of June 30, 1911.

Tabular Statement showing Action about Municipal Gas or Electric Plants prior to Jan. 1, 1911.

	Votes favorable to Acceptance of the Municipal Ownership Act.		Votes against the Acceptance of the Municipal Ownership Act.		Remarks.
Arlington,	Dec. 29, 1894	-	May 13, 1895	-	Investigating committee report in 1895.
Ashburnham,	Aug. 27, 1907	Oct. 29, 1907	-	-	Votes favorable to acquiring an electric lighting system were 52 to 4, and 53 to 1. Nov. 1, 1907, the town acquired plant formerly of Greene Electric Light, Power and Manufacturing Company.
Ayer,	Nov. 15, 1897	-	April 4, 1898	-	-
Belmont,	March 2, 1896	Aug. 20, 1896	-	-	Electric distributing plant of local company taken by town May 3, 1898. Current bought from Somerville company until Oct. 1, 1902, and thereafter from Cambridge company.
Beverly,	-	-	-	-	Adverse committee report in 1897.
Billerica,	Aug. 6, 1901	-	Oct. 15, 1901	-	-
Boston, ¹	Jan. 5-9, 1905	-	Feb. 8, 1906	-	Plant for electric street lighting only, started Oct. 15, 1892.
Braintree,	Aug. 25, 1891	Oct. 29, 1891	-	-	Commercial plant completed October, 1894.
Brookton, ¹	Dec. 30, 1892	Nov. 9, 1893	-	-	Proposition rejected by the voters at annual election in December, 1893.
Brookline,	-	-	-	-	Adverse committee report accepted in 1891.
Cambridge, ¹	Nov. 23, 1893	{ Dec. 12, 1894 } { Dec. 31, 1895 }	-	-	City council refused to submit question to voters, 1893. Proposition rejected by the voters in 1896. Adverse committee report in 1906.
Canton,	-	-	-	-	Investigating committee appointed in 1897.
Chicopee, ¹	Nov. 30, 1891	Dec. 16, 1892	-	-	Popular vote upon establishing an electric light plant, December, 1894. Yes, 1,504; no, 182. Began to operate plant in May, 1896.
Clinton,	July 14, 1908	-	-	-	Vote of July 14, 1908, favorable to acquiring a plant for the manufacture of gas and electricity, was 223 to 27. No vote taken in 1909.
Concord,	March 30, 1896	March 29, 1897	-	-	Electric plant built and put in operation in January, 1900.
Danvers,	-	-	-	-	Under special act. Plant for electric street lighting only started Jan. 2, 1889. Plant for commercial lighting built in 1896.

Dedham, . . .	-	-	-	-	-	-	Investigating committee appointed in 1897. Adverse committee report in 1899, and a ten-year contract made with the local company. Investigating committee appointed in 1892. No report.
East Bridgewater, Erving Electric Light District, . . .	-	-	-	-	-	-	District established by Acts of 1909, chapter 496. Adverse committee report adopted Nov. 27, 1894. Adverse committee report in 1895. New investigating committee appointed in 1901. Proposition referred to a new committee in 1905.
Everett, . . .	July	2, 1909	Sept.	3, 1909	-	Jan. 26, 1892 ²	
	March	1, 1892 ²	{ March 18, 1893 ¹ Jan. 9, 1894				
Fall River, . . .	Dec.	4, 1899 ²	{ July 6, 1903 ¹ Feb. 1, 1904		Aug. 1, 1904		Adverse committee report adopted Oct. 5, 1891. Proposition referred by the aldermen to the next city government in 1899. Vote of Feb. 1, 1904, annulled and rescinded on Aug. 1, 1904. Adverse committee report in 1906. Investigating committee, 1891. Plant began operation Nov. 20, 1909. Plant began operation April 1, 1907.
Frammingham, Groton, . . .	April	5, 1909	July 2, 1909	-	-	-	
Groveland, . . .	Oct.	22, 1906	Dec. 26, 1906	-	-	-	
Haverhill, ⁴ . . .	{ Dec. 8, 1892 Dec. 23, 1909		June 9, 1910	Dec. 30, 1891 Dec. 6, 1910			Votes of municipal council to acquire gas and electric light plants respectively on Dec. 23, 1909. Similar vote favorable to acquiring an electric plant on June 9, 1910, but rejected on referendum at city election by vote of yes, 1,328; no, 4,780; blanks, 798. Investigating committee, 1891 and 1892. Electric distributing plant purchased from Weymouth company. Current bought from that company. Motion to acquire electric light plant lost for want of requisite two-thirds vote, the vote standing 135 yes and 86 no. Popular vote upon establishing an electric light plant, Dec. 14, 1897. Yes, 2,540; no, 1,735; blanks, 1,512. Popular vote in July, 1900, upon the acceptance of a contract with the Holyoke Water Power Company, under a special act intended to relieve the city, at its option, of its obligation under the general law to take the lighting plants of the company. Yes, 1,926; no, 2,136; blanks, 17. Water power company's plant taken under decree of the court on Dec. 15, 1902.
Hingham, . . .	March	13, 1893	July 26, 1893	-	-	-	
Holden, . . .	May	27, 1909	-	-	-	-	
Holyoke, ¹ . . .	Dec.	15, 1896	Jan. 5, 1897	-	-	-	

¹ The votes stated were passed by the city council.² This vote by the town before chartered as a city.³ In common council only.⁴ The votes for were passed by the municipal council, and the vote against by the votes at city election.

Tabular Statement showing Action about Municipal Gas or Electric Plants prior to Jan. 1, 1911 — Continued.

	Votes favorable to Acceptance of the Municipal Ownership Act.		Votes against the Acceptance of the Municipal Ownership Act.		Remarks.
Hopkinton, .	-	-	-	-	Investigating committee chosen in 1906. Committee reported Aug. 2, 1906, and town voted to make a ten-year street-lighting contract with Edison company of Boston.
Hudson, .	July 1, 1891	Sept. 2, 1891	-	-	Adverse committee reports adopted Nov. 11, 1891, and March 15, 1892. Town required by decree of court (1896) to take plant of existing company; possession taken Jan. 15, 1897. New plant put in operation Aug. 8, 1897. Electric plant of local company bought Oct. 15, 1894.
Hull, .	June 28, 1894	Oct. 6, 1894	-	-	Investigating committees appointed in 1893, 1897 and 1898.
Ipswich, .	May 27, 1901	Sept. 23, 1901	-	-	Investigating committee appointed in 1893.
Lawrence, .	-	-	April 3, 1905	-	Subject referred to a committee in 1905.
Leominster, .	-	-	April 12, 1905	-	Proposition for investigating committee lost, Oct. 15, 1891.
Lexington, .	-	-	Nov. 7, 1899	-	Investigating committee appointed in 1893. Report made with no recommendations.
Lowell, .	-	-	Oct. 13, 1902	-	Motion to acquire an electric plant lost by vote of 109 for to 58 against, as statute requires two-thirds vote.
Malden, .	-	-	July 22, 1908	-	Electric light plant built in 1903-04.
Manchester, .	July 28, 1902	-	-	-	Electric plant constructed in 1894.
Mansfield, .	July 17, 1901	Oct. 16, 1901	-	-	Investigating committee appointed in 1893 and special commission in 1895. Adverse report in 1897, and commission continued.
Marblehead, .	July 22, 1891	June 15, 1892	-	-	Town refused to authorize bonds for a plant March 28, 1892.
Medford, .	April 15, 1893 June 13, 1905	April 30, 1894	-	-	Began to operate new electric plant in 1904.
Melrose, .	June 8, 1891	March 21, 1892	-	-	Voted to pass over article in warrant, 1891. Investigating committee appointed in 1895.
Merrimac, .	May 16, 1903	Jan. 30, 1904	March 19, 1898	-	Combined gas and electric plant purchased of local company in 1893.
Methuen, .	-	-	-	-	Operating under special act passed in 1903.
Middleborough, .	March 25, 1893	Oct. 28, 1893	-	-	Voted to pass over article in warrant, 1897.
Millers Falls Water Supply District, .	-	-	-	-	
Natick, .	-	-	-	-	

Needham, . . .	March 7, 1892	May 31, 1892	-	-	Electric distributing plant for street lighting only constructed, 1893. Investigating committee on generating plant appointed April 1, 1907. On Jan. 7, 1908, town authorized sale of plant, and on March 2, 1908, this was done, and town went out of business of electric lighting. Unfavorable committee report accepted Sept. 11, 1890. Investigating committee appointed in 1897. Proposition referred to next city government in 1905. Resolve adopted by city council favoring a plant solely for municipal purposes in 1897. Adverse committee report in 1906. Electric plant built in 1894. Favorable committee report tabled April 19, 1892. Plant constructed and operation begun Aug. 15, 1907. Plant for electric street lighting started Sept. 27, 1892. Commercial plant started Nov. 10, 1893. Investigating committee appointed June 19, 1906, reported March 25, 1907. Report accepted as "report of progress." Investigating committee appointed in 1891. Proposition referred to next city government in 1905. Electric lighting plant built in 1895. Investigating committee appointed in 1898. Action in 1899 in favor of a gas plant only. Investigating committee appointed Dec. 12, 1910. Investigation by committee authorized in 1896. Favorable report in 1897; no action taken. Investigating committee appointed in 1906. First vote to establish municipal lighting system adopted, yes, 131; no, 6. Second vote, yes, 122; no, 2. Plant constructed and operation begun July 7, 1910. Investigating committee appointed in 1897. Investigating committee appointed in 1907. On March 2, 1908, committee reported adversely to municipal ownership, and town authorized a long-term street-lighting contract with Edison company of Boston.
New Bedford, . . .	-	-	-	-	
Newburyport, . . .	-	-	-	-	
Newton, . . .	Dec. 4, 1893	-	-	-	
North Adams, . . .	-	-	-	-	
North Attleborough, . . .	June 30, 1891	April 16, 1892	-	-	
Norwood, . . .	April 13, 1905	April 9, 1906	-	-	
Peabody, . . .	June 18, 1891	Aug. 20, 1891	-	-	
Pepperell, . . .	-	-	-	-	
Plymouth, . . .	-	-	-	-	
Quincy, . . .	-	-	-	-	
Reading, . . .	Oct. 2, 1891	March 7, 1892	-	-	
Revere, . . .	May 15, 1899	Sept. 11, 1899	-	-	
Rockland, . . .	-	-	-	-	
Rockport, . . .	-	-	-	-	
Rowley, . . .	Dec. 17, 1909	Feb. 12, 1910	-	-	
Saugus, . . .	-	-	-	-	
Sharon, . . .	-	-	-	-	

: The votes stated were passed by the city council.

Tabular Statement showing Action about Municipal Gas or Electric Plants prior to Jan. 1, 1911 — Concluded.

	Votes favorable to Acceptance of the Municipal Ownership Act.			Votes against the Acceptance of the Municipal Ownership Act.		Remarks.
Shrewsbury, .	March 2, 1908	May	12, 1908	-	-	Votes favorable to acquiring an electric distributing plant were 115 to 23, and 110 to 16, respectively. Plant constructed in 1908.
Spencer, .	-	-	-	Oct. 6, 1891	-	-
Somerville, ¹ .	-	-	-	Dec. 29, 1897	-	-
South Hadley, .	-	-	-	March 15, 1909	-	-
Springfield, .	-	-	-	-	-	Question of acquiring an electric light plant indefinitely postponed by vote of 105 to 26.
Sterling, .	Aug. 13, 1910	Nov. 26, 1910	-	-	-	Favorable vote in city council Dec. 7, 1892, but held to be inoperative because mayor did not approve. Adverse report from investigating committee in 1893.
Stoneham, .	June 29, 1893	-	-	-	-	Votes favorable to acquiring an electric light plant were 124 to 48 and 124 to 43 respectively.
Stoughton, .	April 12, 1892	{ June 16, 1892 } { June 29, 1893 }	-	-	-	Subject considered in 1894, but action postponed indefinitely. Investigating committee appointed in 1906.
Swampscott, .	-	-	-	-	-	Schedule of gas and electric property filed by local company. Action of 1892 thought to be ineffective.
Taunton, ¹ .	Dec. 14, 1895	Nov. 2, 1896	-	-	-	Subject referred to special committee in 1899.
						Popular vote upon undertaking the electric lighting business, December, 1896. Yes, 1,952; no, 1,760; blanks, 701.
						Plant of local electric company taken in 1897, under decree of court. New works built in 1903; occupied in 1904.
Templeton, .	March 10, 1906	May 14, 1906	-	-	-	Plant constructed and began operation Jan. 24, 1907.
Wakefield, .	July 9, 1891	Aug. 15, 1892	-	-	-	Combined gas and electric plant of local company taken in 1894, under decree of court.
Walpole, .	-	-	-	-	-	Investigating committee appointed in 1901.
Waltham, ¹ .	Dec. 23, 1895	-	-	Dec. 28, 1896	-	Proposition tabled in city council, 1897.
Warren, .	-	-	-	-	-	Proposition tabled June 3, 1899.

Wellesley, .	March 7, 1892	June 8, 1892	-	-	Distributing plant for electric street lighting only built, and use begun Dec. 13, 1892. Committee appointed in 1899 to consider the expediency of building a plant for commercial lighting. Committee appointed in 1900 to procure proposals for constructing a plant for street and commercial lighting. Recommendation of committee that town construct a plant for commercial lighting rejected by the town in 1901. Distributing plant for commercial lighting bought from local company in 1905. First vote to acquire electric light plant adopted 71 to 2. Plant constructed and operation begun Aug. 3, 1910.
West Boylston, .	Oct. 19, 1909	Dec. 20, 1909	-	-	Possession of combined gas and electric plant of local company taken by town on June 1, 1899, at a cost of \$150,000. Investigating committee appointed in 1901.
Westborough, .	March 8, 1897	March 1, 1898	July	7, 1903	Proposition to construct an electric light plant defeated Oct. 31, 1904. Proposition to lease and maintain such a plant lost on same date. Subject indefinitely postponed March 4, 1899.
Weston, .	-	-	-	-	Investigating committee appointed in 1906. Report in 1907, and two votes on municipal electric plant, resulting 40 yes, 74 no, and 29 yes and 42 no, respectively.
West Springfield, .	Sept. 10, 1895	{ April 6, 1896 } April 5, 1897	April 1, 1900	{ July 13, 1892 } June 27, 1906 March 12, 1900 March 4, 1907 July 8, 1907 March 16, 1908	Vote relative to acquiring an electric plant was 52 for and 91 against.
Weymouth, .	-	-	-	-	Investigating committee appointed in 1892. In 1894 this committee discharged and further action refused. Proposition indefinitely postponed in 1895.
Whitman, .	Dec. 30, 1891	-	-	-	Votes favorable to acquiring an electric plant were 182 to 5, and 109 to 21, respectively.
Wilmington, .	-	-	-	-	
Winchester, .	March 6, 1893	June 22, 1893	-	-	
Woburn, ¹ .	Dec. 31, 1892	{ Nov. 14, 1893 } Nov. 20, 1905	Oct. 12, 1906	-	
Wrentham, .	June 6, 1907	March 16, 1908	-	-	

¹ The votes stated were passed by the city council.

Propositions Considered.

Boylston. — At a town meeting held on April 17, 1911, a ballot was taken upon a motion "that the town of Boylston construct and maintain a plant for the manufacture or distribution of electricity for furnishing light, heat or power for the use of the inhabitants of the town of Boylston, or otherwise procure such light as may be most advantageous to the town, at a cost not to exceed \$6,000," and 26 voted in the affirmative and 21 in the negative, and the motion was declared lost by failure to receive the necessary two-thirds vote. At a meeting held on May 15, 1911, a similar motion was offered and a ballot taken which resulted in 37 affirmative and 33 negative votes, and the motion was declared lost by failure to secure the necessary two-thirds vote.

Georgetown. — At the annual town meeting held March 6, 1911, the following vote was adopted: "Voted, that an efficient committee of three be chosen to investigate electric or other street lighting systems, and report at the next annual meeting." Asa F. Howe, William Bray and A. Baker Hull were chosen as this committee.

Holden. — At a town meeting held on June 20, 1911, it was voted by ballot, with the use of the voting list, yes, 147, no, 52, "that the town do construct and maintain within its limits a plant for the distribution of electricity for furnishing light for municipal use, or light, heat or power, except for the operation of cars, for the use of its inhabitants." At a meeting held Sept. 5, 1911, the town adopted the same vote, 159 voting yes and 35 no. At the same meeting the town authorized the issue of notes to the amount of \$10,000, to pay for the building and equipment of a plant for the distribution of electricity, and authorized the selectmen to construct and equip such plant and to make and sign a contract for the purchase of electricity from any company or corporation manufacturing electricity for a term not exceeding ten years.

Monson. — At the annual town meeting held on April 3, 1911, it was voted "that the moderator appoint a committee of three to investigate and report, at any special or annual town meeting, as to the advisability of establishing in the town of

Monson a municipal lighting plant." Arthur D. Norcross, Frank Lincoln Bliss and Dwight W. Ellis were appointed as such committee, and \$1,000 was appropriated for their use.

Northampton. — On March 2, 1911, the city council appointed a committee to select a commission of seven citizens to investigate the advisability of establishing a municipal lighting plant, and to report to the city council under authority of this vote. The following-named citizens were selected to serve on such commission: Charles E. Childs, L. F. Babbitt, M. J. McCarthy, Victor Rocheleau, Benjamin E. Cook, A. G. Beckmann and E. E. Davis.

Springfield. — An order passed by the city council and approved May 23, 1911, provided that "a committee of three members of the common council and two members of the board of aldermen be appointed to consider and report on that portion of the mayor's address relating to the public lighting companies and the taking over by the city of the property and franchise rights of the local gas and electric companies." Aldermen Stacy and Wight and Councilmen Belding, J. R. Albee and Cannon were appointed as such committee. An order authorizing an appropriation of \$1,000 for the purpose of defraying the expenses of investigating municipal lighting plants was presented in the board of aldermen on Nov. 13, 1911, and referred to the committee on finance. Said committee, on Nov. 20, 1911, reported that such expenditure was inadvisable at that time, and this report was accepted and adopted.

Sterling. — At a town meeting held on Jan. 28, 1911, it was voted, 144 voting yes and 50 voting no, "that the town install a system of electric lighting in town ways and town buildings at an expense not exceeding \$6,000." At the same meeting it was voted to authorize the town treasurer to give a note or notes of the town for a term not exceeding ten years, to an amount not exceeding \$6,000, for the purpose of raising funds to install a system of electric lighting in the town ways and town buildings. At a meeting held on March 6, 1911, the sum of \$200 was appropriated for the use of the committee on electric lighting, to be paid by taxation in 1911. At a meeting held Aug. 24, 1911, the sum of \$500 was appropriated for the pur-

chase of supplies for the commercial service of the electric lighting system. At a meeting held Dec. 19, 1911, the sum of \$500 was appropriated for the purpose of extending the commercial services of the electric lighting system.

Wrentham. — At the annual town meeting in March, 1910, it was voted that a committee of three be chosen to investigate the matter of lighting the streets of the town and to report at a future meeting of the town, and that the board of water commissioners be that committee. At the annual meeting in March, 1911, this committee made a verbal report, and it was voted that the committee be continued.

Operation of the Plants.

Ashburnham. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$4,011 36
For interest on bonds, notes or scrip,	410 00
For depreciation fund (3 per cent. on \$10,690),	320 70
For note payments,	500 00
<hr/>	
Total,	\$5,242 06
Income: —	
From private consumers,	\$4,365 63
From municipal buildings,	229 29
From appropriation for maintenance,	1,230 72
<hr/>	
	5,825 64
<hr/>	
Excess of income and appropriations over expenditures,	\$583 58

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$4,476 04
For interest on bonds, notes or scrip,	400 00
For depreciation fund (3 per cent. on \$11,798.70),	353 96
For note payments,	500 00
<hr/>	
Total,	\$5,730 00

Income: —	
From private consumers,	\$4,500 00
From municipal buildings,	230 00
	<hr/>
	\$4,730 00
	<hr/>
Balance,	\$1,000 00
For new construction,	900 00
	<hr/>
	\$1,900 00

The following appropriations were voted March 6, 1911, for account of the electric department: —

For interest,	\$400 00
For note payments,	500 00
	<hr/>
	\$900 00
For construction,	900 00
	<hr/>
	\$1,800 00

Belmont. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$16,089 77
For interest on bonds, notes or scrip,	660 00
For depreciation fund (3 per cent. on \$45,513.36), .	1,366 00
For sinking fund requirements,	280 00
For note payments,	500 00
	<hr/>
Total,	\$18,895 77
 Income: —	
From private consumers,	\$13,492 98
From municipal buildings, etc.,	309 19
From appropriation for maintenance,	4,796 00
	<hr/>
	18,598 17
	<hr/>
Apparent loss in operation as defined by statute,	\$297 60

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$17,000 00
For interest on bonds, notes or scrip,	630 00
For depreciation fund (3 per cent. on \$48,414.76), .	1,453 00
For sinking fund requirements,	280 00
For note payments,	500 00
For loss in preceding year,	297 60

Total, \$20,160 60

Income: —

From private consumers,	\$14,500 00
From municipal buildings and jobbing,	300 00

14,800 00

Balance,	\$5,360 60
For new construction,	547 00

\$5,907 60

The following appropriations were voted March 13, 1911, for account of the electric department: —

For maintenance and operations,	\$1,000 00
For interest,	630 00
For depreciation fund,	1,453 00
For sinking fund,	280 00
For note payment,	500 00

\$3,863 00

For construction,	547 00
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\$4,410 00

Braintree. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$18,378 64
For interest on bonds, notes or scrip,	847 50
For depreciation fund (3 per cent. on \$144,717.01),	4,341 51
For sinking fund requirements,	430 00
For note payments,	5,000 00

Total, \$28,997 65

Income: —	
From private consumers,	\$23,788 77
From municipal buildings,	461 88
From appropriation for maintenance, .	12,619 01
	<hr/>
	\$36,869 66
Excess of income and appropriations over expenditures,	
	\$7,872 01

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$19,000 00
For interest on bonds, notes or scrip,	760 00
For depreciation fund (8 per cent, on \$151,303.77), .	4,539 11
For sinking fund requirements,	430 00
For note payments,	2,500 00
	<hr/>
Total,	\$27,229 11
Income: —	
From private consumers,	\$24,500 00
From municipal buildings,	500 00
	<hr/>
	25,000 00
Balance,	\$2,229 11
For new construction,	5,000 00
	<hr/>
	\$7,229 11

At a town meeting held on March 20, 1911, the town voted to appropriate the income from private consumers for operating expenses, repairs and renewals. The following appropriations were also made, viz.: —

For salaries of municipal light board,	\$300 00
For depreciation fund,	4,539 11
For interest,	660 00
For sinking fund,	430 00
	<hr/>
	\$5,929 11

At the same meeting the following votes were also adopted, viz.: “ Voted, that \$2,500 be appropriated from the unexpended balance of the appropriation for the electric light department, made in 1910, to restore to the town treasury the amount of the ‘ Caleb Stetson note,’ so called, and that the act of the treasurer under the authority given by a resolution passed by the town

in 1899, whereby he used the Caleb Stetson fund to pay two notes of the electric light department, amounting to \$2,500, be and is hereby ratified and confirmed, and so much of the indebtedness of the department is declared liquidated and paid."

Also "*Voted*, to reappropriate the remainder of the unexpended balance of the appropriation of 1910, amounting to \$2,237, for extension of lines, connecting new consumers, repairs and renewals."

Also "*Voted*, to appropriate the sum of \$56,976.96, shown in the accounts of the electric light department under the name of 'Overdraft for construction.'"

Chicopee. — The result of the operation of the plant for the fiscal year ending Nov. 30, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$44,362 54
For interest on bonds, notes or scrip, . . .	3,822 50
For depreciation fund (3 per cent. on \$197,246), .	5,917 38
For note payments,	4,000 00
For bond payments,	5,000 00
For jobbing labor,	556 38
Total,	\$63,658 80

Income: —

From private consumers,	\$39,117 59
From municipal buildings,	4,300 60
From appropriations for maintenance,	20,240 61
	<hr/>
	\$63,658 80

The estimates submitted by the manager for the fiscal year beginning Dec. 1, 1910, were as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$43,500 00
For interest on bonds, notes or scrip, . . .	3,477 50
For depreciation fund (3 per cent. on \$225,214.99), .	6,756 45
For note payments,	1,000 00
For bond payments,	5,000 00
Total,	\$59,733 95
Income from private consumers,	43,500 00
Balance,	\$16,233 95
For new construction,	13,766 05
	<hr/>
	\$30,000 00

Appropriations have been made on May 3, 1911, of \$50,000, and on May 19, 1911, of \$18,000, for the use of the electric light department. On Oct. 16, 1911, the city council appropriated the sum of \$96,000 "for the reconstruction of the electric light plant by the installation of new boilers, turbines, generators, condensers and switchboard, and such other apparatus and appliances as may be required in such reconstruction." On Nov. 13, 1911, it authorized for this purpose an issue of \$96,000 bonds, to be dated Nov. 1, 1911, bearing interest at the rate of 4 per cent. per annum, and payable \$2,000 in 1912 and \$2,000 each year thereafter until 1922 inclusive; \$3,000 in each of the years 1923 and 1924; \$4,000 in each of the years 1925 and 1926, and \$6,000 in 1926, and annually thereafter until all of said bonds have been retired.

Concord. — The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$31,831 91
For interest on bonds, notes or scrip,	4,735 00
For sinking fund requirements,	2,811 80
<hr/>	
Total,	\$39,378 71

Income: —

From private consumers,	\$26,755 40
From municipal buildings and jobbing,	6,987 41
From appropriation for maintenance,	7,933 78
<hr/>	
	41,676 59

Excess of income and appropriations over expenditures,	\$2,297 88
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The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$26,000 00
For interest on bonds, notes or scrip,	5,135 00
For depreciation fund (3 per cent. on \$144,021.44),	4,320 64
For sinking fund requirements,	2,680 00
<hr/>	
Total,	\$38,135 64

Income: —	
From private consumers,	\$28,000 00
From municipal departments,	1,200 00
From pole rentals,	800 00
	<hr/>
	30,000 00
	<hr/>
Balance,	\$8,135 64

At the annual town meeting held April 3, 1911, the following votes were adopted: —

"*Voted*, that the sum of \$5,000, the unexpended balance and the receipts of the electric light plant, be appropriated for the purpose of operating and maintaining the plant, for the payment of interest upon the municipal light loans, for the contribution of 2 per cent. to the sinking funds of said loans and for the care and operation of the fire-alarm system."

"*Voted*, that if it be found necessary a sum not to exceed \$2,000 be transferred from the maintenance account to the construction account of the municipal light plant for the purchase of meters, transformers and line material."

Danvers. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$23,258 18
For interest on bonds, notes or scrip,	2,856 83
For depreciation fund (3 per cent. on \$109,971),	3,299 13
For sinking fund requirements,	3,000 00
For note payments,	4,103 92
	<hr/>
Total,	\$36,518 06

Income: —	
From private consumers,	\$31,134 78
From municipal buildings,	548 16
From appropriation for maintenance,	8,695 00
	<hr/>
	40,377 94
	<hr/>

Excess of income and appropriations over expenditures,	\$3,859 88
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The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$28,359 38
For interest on bonds, notes or scrip, . . .	3,276 00
For depreciation fund (3 per cent. on \$129,487.17), .	3,884 62
For sinking fund requirements, . . .	4,000 00

Total,	\$39,520 00
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Income: —

From private consumers, . . .	\$29,600 00
From municipal buildings, . . .	400 00

30,000 00

Balance,	\$9,520 00
For new construction,	6,000 00

\$15,520 00

At a meeting held Jan. 6, 1911, the town voted to appropriate \$3,000 to purchase and improve certain land for the electric light department and to issue six \$500 serial bonds therefor.

On March 23, 1911, the town made the following votes and appropriations: (1) that the appropriation of \$4,000 made in 1910 for construction, extensions and additions be paid from the cash balance of net earnings of 1910; (2) that overdrafts of \$3,206.16 for extensions and additions in 1910 be paid to the extent of \$953.87 from cash balance of net earnings in 1910; (3) that \$3,000 be appropriated for new construction in 1911, \$9,520 for street lighting, \$371.20 for fire alarm, and \$78.80 for overdraft of 1910; and that to cover overdrafts for extensions in 1910 and new construction in 1911 bonds to the amount of \$8,000 be issued. The sum of \$2,194.50 to be taken from the earnings was also appropriated for additional street lights.

On May 12, 1911, the town voted to appropriate \$137.90 for street lights and \$30 for their maintenance, and on June 22, 1911, appropriated \$500 more for the maintenance of additional street lights installed in 1911.

Groton. — The result of the operation of the plant for the fiscal year ending March 9, 1911, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$2,484 45
For interest on bonds, notes or scrip,	701 75
For depreciation fund (3 per cent. on \$17,852), . .	535 56
For note payments,	2,500 00
	<hr/>
Total,	\$6,221 76
 Income: —	
From private consumers,	\$1,103 37
From appropriation for maintenance,	5,226 75
	<hr/>
	6,330 12
	<hr/>
Excess of income and appropriations over expenditures,	\$108 36

The estimates submitted by the manager for the fiscal year beginning March 10, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$2,675 00
For interest on bonds, notes or scrip,	604 89
For depreciation fund (3 per cent. on \$20,181.26), .	605 43
For note payments,	2,500 00
	<hr/>
Total,	\$6,385 32
 Income from private consumers,	 1,400 00
	<hr/>
Balance,	\$4,985 32
For new construction,	400 00
	<hr/>
	\$5,385 32

The following appropriations were voted April 3, 1911, for account of the electric light department: —

For maintenance and depreciation,	\$2,180 72
For note payments,	2,500 00
	<hr/>
	\$4,680 72
For construction,	550 00
	<hr/>
	\$5,230 72

Groveland. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1911, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs, . . .	\$3,568 40
For interest on bonds, notes or scrip, . . .	630 00
For depreciation fund (3 per cent. on \$15,000), .	450 00
For note payments,	500 00
Total,	<u>\$5,148 40</u>
Income: —	
From private consumers,	\$1,986 66
From jobbing,	143 76
From appropriation for maintenance,	3,065 00
	<u>5,195 42</u>
Excess of income and appropriations over expenditures,	\$47 02

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures: —	
For operation, maintenance and repairs, . . .	\$3,592 50
For interest on bonds, notes or scrip, . . .	607 50
For depreciation fund (3 per cent. on \$15,000), .	450 00
For note payments,	500 00
Total,	<u>\$5,150 00</u>
Income from private consumers,	2,200 00
Balance,	<u>\$2,950 00</u>
For new construction,	50 00
	<u>\$3,000 00</u>

The following appropriation was voted March 13, 1911, for account of the electric light department:—

For electric lighting,	\$3,000 00
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Hingham. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows:—

Expenditures: —	
For operation, maintenance and repairs, . . .	\$17,977 31
For interest on bonds, notes or scrip, . . .	612 50
For depreciation fund (3 per cent. on \$47,309.52), .	1,419 00
For note payments,	3,000 00
Total,	<u>\$23,008 81</u>

Income: —	
From private consumers,	\$17,126 66
From jobbing,	710 51
From appropriation for maintenance, .	7,761 50
	<hr/>
	\$25,598 67
Excess of income and appropriations over expenditures,	
	\$2,589 86

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$18,000 00
For interest on bonds, notes or scrip,	500 00
For depreciation fund (3 per cent. on \$49,878.73), .	1,500 00
For note payments,	4,000 00
	<hr/>
Total,	\$24,000 00
Income from private consumers,	
	16,500 00
Balance,	<hr/>
	\$7,500 00

At a town meeting held on March 23, 1911, there was appropriated for maintenance from the unexpended balance of 1910, \$2,081.59, and from the tax levy the further sum of \$1,670; also for interest, \$500; for depreciation fund, \$1,500 from the tax levy and \$1,000 from the unexpended balance of 1910; and for construction, \$6,580.

Holyoke. — The result of the operation of the plant for the fiscal year ending Nov. 30, 1910, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$247,833 87
For interest on bonds, notes or scrip,	33,401 34
For depreciation fund (3 per cent. on \$1,204,915.19),	36,147 00
For bond payments,	42,100 00
	<hr/>
Total,	\$359,482 21
Income: —	
From private consumers,	\$378,730 68
From appropriation for maintenance, .	32,815 84
	<hr/>
	411,546 52
Excess of income and appropriations over expenditures,	
	\$52,064 31

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures:—

For operation, maintenance and repairs,	\$290,863 00
For interest on bonds, notes or scrip,	34,730 50
For depreciation fund,	53,619 00
For bond payments,	43,787 50

Total,	\$423,000 00
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Income from private consumers,	398,000 00
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Balance,	\$25,000 00
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On March 7, 1911, the board of aldermen appropriated for lighting, \$34,000; and from the receipts of the gas and electric department — for depreciation, \$53,619; for interest, \$34,730.50; for bonds, \$43,787.50; for general, balance of receipts.

By an order of the board of aldermen approved Nov. 16, 1911, the sum of \$990.01 was transferred from gas and electric department receipts to gas and electric department interest account.

Hudson. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows:—

Expenditures:—

For operation, maintenance and repairs,	\$15,857 52
For interest on bonds, notes or scrip,	1,323 63
For depreciation fund (3½ per cent. on \$84,404.50),	2,954 16
For note payments,	3,000 00

Total,	\$23,135 31
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Income:—

From private consumers,	\$20,813 53
From jobbing,	303 26
From appropriation for maintenance,	6,276 59
	<hr/>
	27,393 38

Excess of income and appropriations over expenditures,	\$4,258 07
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The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$16,675 35
For interest on bonds, notes or scrip,	1,290 92
For depreciation fund (3 per cent. on \$84,457.50),	2,533 73
For note payments,	3,000 00
<hr/>	
Total,	\$23,500 00
 Income from private consumers,	
	19,000 00
<hr/>	
Balance,	\$4,500 00

At a town meeting held on April 3, 1911, it was voted to extend the electrical plant from Gleasondale to Stow Lower Village, and the treasurer was authorized to borrow \$5,000 for this purpose. On May 15, 1911, the town appropriated \$415 to install and maintain eight incandescent street lamps.

Hull.—The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$29,151 92
For interest on bonds, notes or scrip,	4,194 89
For depreciation fund (3½ per cent. on \$167,825.58),	5,034 77
For sinking fund requirements,	3,000 00
For note payments,	1,000 00
For loss in preceding year,	2,971 41
<hr/>	
Total,	\$45,352 99
 Income:—	
From private consumers,	\$29,398 20
From appropriation for maintenance,	11,400 00
<hr/>	
	40,798 20
<hr/>	
Apparent loss in operation as defined by statute,	\$4,554 79

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures: —

For operation, maintenance and repairs,	\$25,886 12
For interest on bonds, notes or scrip,	4,533 08
For depreciation fund (3 per cent. on \$184,808.41),	5,544 25
For sinking fund requirements,	1,911 24
For note payments,	1,000 00
For loss in preceding year,	4,554 79
<hr/>	
Total,	\$43,429 48
Income from private consumers,	33,974 00
<hr/>	
Balance,	\$9,455 48
For new construction,	1,000 00
<hr/>	
	\$10,455 48

The following appropriations were voted March 6, 1911, for account of the electric light department: —

For operation and maintenance,	\$955 75
For depreciation fund,	5,544 25
For note payment,	1,000 00
<hr/>	
	\$7,500 00
For construction,	1,000 00
<hr/>	
	\$8,500 00

Ipswich. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$11,285 81
For interest on bonds, notes or scrip,	1,840 00
For depreciation fund (3 per cent. on \$49,471.66),	1,484 15
For note payments,	1,000 00
<hr/>	
Total,	\$15,609 96

Income: —

From private consumers,	\$8,594 48
From steam power, etc.,	2,139 33
From jobbing, etc.,	203 36
From appropriation for maintenance,	5,784 15
<hr/>	
	16,721 32
<hr/>	

Excess of income and appropriations over expenditures,

\$1,111 36

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$12,650 00
For interest on bonds, notes or scrip,	2,480 00
For depreciation fund (3 per cent. on \$52,271),	1,568 12
For note payments,	1,750 00
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Total,	\$18,448 12
 Income:—	
From private consumers,	\$9,000 00
From power and rentals,	2,150 00
<hr/>	
	11,150 00
<hr/>	
Balance,	\$7,298 12
For new construction,	2,000 00
<hr/>	
	\$9,298 12

The following appropriations were voted March 6, 15 and 31, 1911, for account of electric light department:—

For maintenance,	\$1,500 00
For interest,	2,520 00
For depreciation fund,	1,568 12
For notes payable,	1,662 09
<hr/>	
	\$7,250 21
For construction,	2,000 00
<hr/>	
	\$9,250 21

Mansfield.—The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$16,037 98
For interest on bonds, notes or scrip,	3,050 00
For depreciation fund,	3,000 00
For sinking fund requirements,	1,000 00
For bond payments,	1,000 00
<hr/>	
Total,	\$24,087 98

Income: —

From private consumers,	\$16,764 71	
From municipal buildings,	606 48	
From appropriation for maintenance,	8,060 00	
	<hr/>	\$25,431 19
Excess of income and appropriations over expenditures,		\$1,343 21

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures: —

For operation, maintenance and repairs,	\$16,000 00	
For interest on bonds, notes or scrip,	3,010 00	
For depreciation fund,	3,000 00	
For sinking fund requirements,	1,000 00	
For bond payments,	1,000 00	
Total,	<hr/>	\$24,010 00
Income from private consumers,	16,000 00	
Balance,	<hr/>	\$8,010 00

At the annual town meeting held on March 6, 1911, the town appropriated for electric lighting plant the receipts, and also "Voted, that the sum of all balances except those of electric light plant, . . . be turned into the treasury. . . ."

At a meeting held on June 14, 1911, the town authorized a loan for construction purposes to the amount of \$22,500.

Marblehead. — The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows:—

Expenditures: —

For operation, maintenance and repairs,	\$29,571 95	
For interest on bonds, notes or scrip,	3,373 33	
For sinking fund requirements,	1,000 00	
For bond payments,	3,000 00	
Total,	<hr/>	\$36,945 28

Income: —

From private consumers,	\$29,726 96	
From municipal buildings,	1,868 19	
From interest,	467 14	
From appropriation for maintenance,	8,373 33	
	<hr/>	40,435 62
Excess of income and appropriations over expenditures,		\$3,490 34

The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$33,000 00
For interest on bonds, notes or scrip,	3,253 33
For depreciation fund (3 per cent. on \$136,950.49), .	4,108 51
For sinking fund requirements,	1,000 00
For bond payments,	3,000 00
<hr/>	
Total,	\$44,361 84
 Income:—	
From private consumers,	\$30,100 00
From municipal buildings,	1,900 00
From interest account,	467 14
<hr/>	
	32,467 14
<hr/>	
Balance,	\$11,894 70
For new construction,	3,000 00
<hr/>	
	\$14,894 70

The following appropriations were voted March 6 and 9, 1911, for account of the electric light department:—

For interest,	\$3,253 33
For depreciation fund,	4,108 51
For sinking fund,	1,000 00
For bond payment,	3,000 00
<hr/>	
	\$11,361 84
For construction,	3,000 00
<hr/>	
	\$14,361 84

Merrimac.—The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$6,464 46
For interest on bonds, notes or scrip,	568 00
For depreciation fund (3 per cent. on \$24,307.26), .	729 22
For note payments,	600 00
For bond payments,	500 00
<hr/>	
Total,	\$8,861 68
Income from private consumers,	8,549 25
<hr/>	

Apparent loss in operation as defined by statute, \$312 43

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$6,417 37
For interest on bonds, notes or scrip,	502 00
For depreciation fund (3 per cent. on \$25,133.92),	754 02
For note payments,	600 00
For bond payments,	500 00
For loss in preceding year,	312 43
<hr/>	
Total,	\$9,085 82
Income from private consumers,	7,250 00
<hr/>	
Balance,	\$1,835 82
For new construction,	250 00
<hr/>	
	\$2,085 82

At the annual town meeting held on March 6, 1911, the sum of \$1,835.82 was appropriated for maintenance of light department, and the sum of \$250 for construction.

Middleborough.—The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$16,064 28
For interest on bonds, notes or scrip,	2,828 00
For depreciation fund (3 per cent. on \$140,927.58),	4,227 83
For bond payments,	3,000 00
For loss in preceding year,	480 64
<hr/>	
Total,	\$26,600 75
Income:—	
From private consumers,	\$20,553 81
From appropriation for maintenance,	8,200 00
<hr/>	
	28,753 81
<hr/>	
Excess of income and appropriations over expenditures,	\$2,153 06

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$18,450 00
For interest on bonds, notes or scrip,	2,708 00
For depreciation fund (4 per cent. on \$140,927.58), .	5,637 10
For bond payments,	3,000 00
<hr/>	
Total,	\$29,795 10
Income from private consumers,	19,995 10
<hr/>	
Balance,	\$9,800 00

The following appropriations were voted April 3, 1911, for account of the gas and electric light department:—

For interest,	\$1,162 90
For depreciation fund,	5,637 10
For bond payments,	3,000 00
For suburban lighting,	400 00
<hr/>	
	\$10,200 00

Millers Falls.—The result of the operation of the plant for the fiscal year ending April 22, 1911, as stated by the manager, was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$2,592 66
For interest on bonds, notes or scrip,	600 00
For depreciation fund (3 per cent. on \$14,770.04), .	443 10
For sinking fund requirements,	300 00
<hr/>	
Total,	\$3,935 77
Income:—	
From private consumers,	\$3,111 87
From appropriation for maintenance,	1,418 10
<hr/>	
	4,529 97
<hr/>	
Excess of income and appropriations over expenditures,	\$594 20

The estimates submitted by the manager for the fiscal year beginning April 23, 1911, were as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$2,700 00
For interest on bonds, notes or scrip,	600 00
For depreciation fund (3 per cent. on \$15,411),	462 33
For sinking fund requirements,	300 00
	<hr/>
Total,	\$4,062 33
Income from private consumers,	3,100 00
	<hr/>
Balance,	\$962 33

The following appropriations were voted May 11, 1911, for account of the electric light department:—

For interest,	\$500 00
For depreciation,	462 35
	<hr/>
	\$962 35

North Attleborough.—The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows:—

Expenditures:—	
For operation, maintenance and repairs,	\$19,768 12
For interest on bonds, notes or scrip,	3,571 09
For depreciation fund (3 per cent. on \$147,656.64),	4,429 70
For sinking fund requirements,	1,500 00
For note payments,	6,695 00
	<hr/>
Total,	\$35,963 91
Income:—	
From private consumers,	\$29,383 26
From appropriation for maintenance,	10,432 13
	<hr/>
	39,815 39
Excess of income and appropriations over expenditures,	\$3,851 48

The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows:—

Expenditures: —	
For operation, maintenance and repairs,	\$27,600 00
For interest on bonds, notes or scrip,	3,376 76
For depreciation fund (3 per cent. on \$149,773.30),	4,493 20
For sinking fund requirements,	1,500 00
For note payments,	2,695 00
<hr/>	
Total,	\$39,664 96
Income from private consumers,	32,000 00
<hr/>	
Balance,	\$7,664 96
For new construction,	8,000 00
<hr/>	
	\$15,664 96

At the annual town meeting held on March 20, 1911, the town voted to "raise and appropriate for the maintenance of the electric department, including sinking funds, notes due in 1911, interest on notes and bonds, current and incidental expenses, for maintenance and repairs, the amount appropriated for street lighting, excepting the \$115 for lighting streets at Adamsdale, and all other receipts of the department;" also to raise and appropriate \$4,493.20 for depreciation fund; also to "appropriate for renewals, in excess of ordinary repairs, extensions, reconstructions, enlargements and additions of the electric light plant that may be required the sum of \$3,640 from the unexpended balance of the electric department, and the 3 per cent. depreciation fund to be raised in 1911, amounting to \$4,493.20." At the same meeting the sum of \$2,482.75 was appropriated for lighting streets.

Norwood. — The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$16,154 99
For interest on bonds, notes or scrip,	2,107 08
For depreciation fund (3 per cent. on \$65,740),	1,973 22
For note payments,	4,500 00
<hr/>	
Total,	\$24,735 29

Income: —	
From private consumers,	\$21,736 03
From appropriation for maintenance, .	3,900 00
	<hr/>
	\$25,636 03
<hr/>	
Excess of income and appropriations over expenditures,	
	\$900 74

The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows:—

Expenditures: —	
For operation, maintenance and repairs,	\$23,550 00
For interest on bonds, notes or scrip,	1,945 00
For depreciation fund (3 per cent. on \$71,151), .	2,134 53
For note payments,	4,000 00
	<hr/>
Total,	\$31,629 53
Income from private consumers,	28,628 79
	<hr/>
Balance,	\$3,000 74
For new construction,	3,000 00
	<hr/>
	\$6,000 74

The following appropriations were voted April 3, 1911, for account of the electric light department:—

For maintenance,	\$450 00
For interest,	1,945 00
For depreciation fund,	2,134 53
For note payments,	4,000 00
	<hr/>
	\$8,529 53
For construction,	3,500 00
	<hr/>
	\$12,029 53

Peabody. — The result of the operation of the plant for the fiscal year ending Jan. 15, 1911, as stated by the manager, was as follows:—

Expenditures: —	
For operation, maintenance and repairs,	\$34,785 65
For interest on bonds, notes or scrip,	3,420 00
For depreciation fund (3 per cent. on \$157,260), .	4,717 98

For sinking fund requirements,	\$800 00
For bond payments,	2,000 00
For loss in preceding year,	231 44

Total,	\$45,955 07
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Income: —

From private consumers,	\$32,655 77
From municipal buildings,	1,839 05
From appropriation for maintenance,	14,991 79

	49,486 61
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Excess of income and appropriations over expenditures,	\$3,531 54
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The estimates submitted by the manager for the fiscal year beginning Jan. 16, 1911, were as follows:—

Expenditures: —

For operation, maintenance and repairs,	\$36,800 00
For interest on bonds, notes or scrip,	3,450 00
For depreciation fund (3 per cent. on \$187,190),	5,615 70
For sinking fund requirements,	800 00
For bond payments,	2,000 00

Total,	\$48,665 70
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Income: —

From private consumers,	\$35,000 00
From municipal buildings,	1,800 00

	36,800 00
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Balance,	\$11,865 70
For new construction,	8,000 00

	\$19,865 70
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At a town meeting held March 20, 1911, the town appropriated for the electric light department its receipts, and also:—

For interest,	\$3,350 00
For bond payments,	2,000 00
For sinking fund,	800 00
For depreciation fund,	5,615 70

	\$11,765 70
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At the same meeting the town voted that a construction balance of \$6,044.85 might be expended by the municipal light

board; that a balance of \$461.36 for electric lights, Lake Shore Park, be carried forward; that \$4,000 be appropriated for extension of the street light system and new street lights; that \$1,000 be appropriated for extensions of the electric lighting system, and that the sum of \$6,000 and the unexpended balance of the "new system" appropriation be appropriated for installing new boilers at the station.

Reading. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$20,929 65
For interest on bonds, notes or scrip,	2,535 75
For depreciation fund (3 per cent. on \$118,545.70),	3,556 00
For note payments,	1,000 00
For bond payments,	3,000 00
	<hr/>
Total,	\$31,021 40

Income: —

From private consumers,	\$25,927 29
From jobbing,	293 55
From interest on bank balance,	52 91
From appropriation for maintenance,	10,225 00
	<hr/>
	36,498 75

Excess of income and appropriations over expenditures,

\$5,477 35

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$23,000 00
For interest on bonds, notes or scrip,	2,728 25
For depreciation fund (3 per cent. on \$135,992.62),	4,079 78
For note payments,	1,500 00
For bond payments,	3,000 00
	<hr/>

Total, \$34,308 03

Income from private consumers, 27,508 03

Balance,	\$6,800 00
For new construction,	2,200 00
	<hr/>

\$9,000 00

At the annual town meeting held March 13, 1911, it was "Voted, that the sum of \$5,800 be raised and appropriated; and this amount, together with the unexpended balance Dec. 31, 1910, of \$221.09, and the receipts of the plant for the current year, be appropriated for the maintenance, operation and repair of said plant, and for the payment of bonds, notes and interest; and that \$4,079.78 be appropriated from the receipts of the plant for depreciation of said plant for the fiscal year of 1911."

At a meeting held June 19, 1911, it was voted to authorize the extension of the town's lines into Wilmington and the making of a ten-year contract for lighting the streets of Wilmington; and to issue bonds to the amount of \$20,000 for this purpose; and also to authorize the issue of notes to the amount of \$2,200 for new construction.

Rowley. — The plant began to sell electricity July 7, 1910. The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$1,570 00
For interest on bonds, notes or scrip,	480 00
For depreciation fund (3 per cent. on \$12,000), . .	360 00
For note payments,	400 00
<hr/>	
Total,	\$2,810 00
Income from private consumers,	1,500 00
<hr/>	
Balance,	\$1,310 00
For new construction,	1,500 00
<hr/>	
	\$2,810 00

At the annual town meeting held March 13, 1911, it was "Voted, to raise and appropriate the sum of \$1,200 for the first payment on the electric light debt, interest on same, the depreciation of the plant and street lighting;" also "to instruct our municipal light board to purchase liability insurance, and \$100 is appropriated therefor from the department of general charges."

At a meeting held June 21, 1911, the town voted to extend its "commercial and street lighting," and to borrow and appropriate the sum of \$2,400 therefor.

Shrewsbury. — The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$5,065 10
For interest on bonds, notes or scrip,	938 44
For depreciation fund (3 per cent. on \$28,132.13), .	850 00
For note payments,	1,500 00
<hr/>	
Total,	\$8,353 54
Income: —	
From private consumers,	\$3,662 60
From appropriation for maintenance, .	4,700 00
<hr/>	
	8,362 60
<hr/>	
Excess of income and appropriations over expenditures,	\$9 06

The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$5,966 68
For interest on bonds, notes or scrip,	933 32
For depreciation fund (3 per cent. on \$31,445.79), .	950 00
For note payments,	1,500 00
<hr/>	
Total,	\$9,350 00
Income from private consumers,	4,500 00
<hr/>	
Balance,	\$4,850 00
For new construction,	1,500 00
<hr/>	
	\$6,350 00

The following appropriations were voted March 6, 1911, for account of the electric light department: —

For maintenance,	\$1,466 68
For interest,	933 32
For depreciation fund,	950 00
For note payment,	1,500 00
<hr/>	
	\$4,850 00
For construction,	1,500 00
<hr/>	
	\$6,350 00

Taunton. — The result of the operation of the plant for the fiscal year ending Nov. 30, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$53,192 17
For interest on bonds, notes or scrip, . . .	13,722 50
For depreciation fund (3 per cent. on \$364,401.75), .	10,932 05
For sinking fund requirements, . . .	7,500 00

Total,	<u>\$85,346 72</u>
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Income: —

From private consumers, . . .	\$76,827 15
From municipal buildings, . . .	2,734 04
From appropriation for maintenance, .	21,222 50
	<u>100,783 69</u>

Excess of income and appropriations over expenditures,	<u>\$15,436 97</u>
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The estimates submitted by the manager for the fiscal year beginning Dec. 1, 1910, were as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$52,000 00
For interest on bonds, notes or scrip, . . .	13,722 50
For depreciation fund (3 per cent. on \$364,401.75),	10,932 05
For sinking fund requirements, . . .	7,500 00

Total,	<u>\$84,154 55</u>
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Income from private consumers, . . .	77,000 00
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Balance,	<u>\$7,154 55</u>
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By an order approved Dec. 1, 1910, the municipal council transferred the balance of the "municipal lighting plant maintenance" account remaining unexpended at the close of the financial year on Nov. 30, 1910, to the "municipal lighting construction" account.

By an order approved April 27, 1911, the municipal council appropriated for the maintenance and expenses of the municipal lighting plant the current receipts of said department; for the electric light loan sinking fund, \$7,500.

By an order approved Sept. 27, 1911, the sum of \$10,932.05 was transferred from the municipal light maintenance to the municipal light depreciation account.

Templeton. — The result of the operation of the plant for the fiscal year ending Jan. 31, 1911, as stated by the manager, was as follows:—

Expenditures:—

For operation, maintenance and repairs,	\$4,298 66
For interest on bonds, notes or scrip,	882 39
For depreciation fund (3 per cent. on \$27,082.71), .	812 48
For note payments,	2,716 67
	<hr/>
Total,	\$8,710 20

Income:—

From private consumers,	\$4,785 75
From rentals,	12 00
From appropriation for maintenance, .	4,611 54
	<hr/>
	9,409 29

Excess of income and appropriations over expenditures,	\$699 09
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The estimates submitted by the manager for the fiscal year beginning Feb. 1, 1911, were as follows:—

Expenditures:—

For operation, maintenance and repairs,	\$4,500 00
For interest on bonds, notes or scrip,	762 05
For depreciation fund (3 per cent. on \$28,364.06), .	850 92
For note payments,	716 67
	<hr/>
Total,	\$6,829 64

Income from private consumers,	5,000 00
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Balance,	\$1,829 64
For new construction,	500 00
	<hr/>
	\$2,329 64

The following appropriations were voted March 11, 1911, for account of the electric light department:—

For interest,	\$262 05
For depreciation fund,	850 92
For note payment,	716 67
	<hr/>
	\$1,829 64
For construction,	1,100 00
	<hr/>
	\$2,929 64

Wakefield. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1911, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$51,849 67
For interest on bonds, notes or scrip,	5,908 25
For depreciation fund (3 per cent. on \$209,831.04),	6,294 93
For note payments,	1,550 00
For bond payments,	9,500 00
	<hr/>
Total,	\$75,102 85

Income: —

From private consumers,	\$63,739 82
From jobbing,	204 65
From appropriation for maintenance,	10,630 00
	<hr/>
	74,574 47

Apparent loss in operation as defined by statute, \$528 38

The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs,	\$52,724 76
For interest on bonds, notes or scrip,	5,466 25
For depreciation fund (3 per cent. on \$226,020.42),	6,780 61
For note payments,	1,000 00
For bond payments,	9,500 00
For loss in preceding year,	528 38
	<hr/>
Total,	\$76,000 00

Income: —

From private consumers,	\$65,795 00
From jobbing,	205 00
	<hr/>
	66,000 00
	<hr/>
Balance,	\$10,000 00

At a town meeting held Nov. 13, 1911, it was voted to petition the town of Reading for authority to construct and maintain in Reading pipes and apparatus for the distribution and sale of gas therein; to raise and appropriate \$7.32 to pay balance due for installing a fire-alarm box, and the further sum of \$200 for use of municipal light board in maintaining fire-alarm system; to appropriate the sums of \$17, \$29 and \$35, respectively, for installing and maintaining three street lamps, the same to be taken from depreciation fund; and "that the town treasurer be authorized to borrow or advance \$1,200 for any overdraft in the depreciation fund of the municipal light department."

Wellesley. — The result of the operation of the plant for the fiscal year ending Dec. 31, 1910, as stated by the manager, was as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$21,459 68
For interest on bonds, notes or scrip, . . .	883 33
For depreciation fund (3 per cent. on \$75,000), . .	2,250 00
For bond payments,	4,000 00
Total,	\$28,593 01

Income: —

From private consumers,	\$24,280 98
From municipal buildings,	575 87
From appropriation for maintenance,	10,500 00
	<hr/>
	35,356 85

Excess of income and appropriations over expenditures,	\$6,763 84
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The estimates submitted by the manager for the fiscal year beginning Jan. 1, 1911, were as follows: —

Expenditures: —

For operation, maintenance and repairs, . . .	\$25,000 00
For interest on bonds, notes or scrip, . . .	726 67
For depreciation fund (3 per cent. on \$80,000), . .	2,400 00
For bond payments,	4,000 00
Total,	\$32,126 67

Income from private consumers,	25,000 00
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Balance,	\$7,126 67
For new construction,	3,000 00
	<hr/>
	\$10,126 67

At a town meeting held Jan. 19, 1911, it was voted to continue the unexpended balance of the municipal light department, and to transfer therefrom \$2,400 to the depreciation fund and \$3,000 to the appropriation for construction. On April 3, 1911, it was "voted that the sum of \$600 be appropriated for extension to the electric light plant."

West Boylston. — The plant began operating Aug. 5, 1910.

The estimates submitted by the manager for the fiscal year beginning March 1, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$1,675 72
For interest on bonds, notes or scrip,	540 00
For depreciation fund (3 per cent. on \$17,000),	510 00
For note payments,	1,000 00
<hr/>	
Total,	\$3,725 72
Income from private consumers,	900 00
<hr/>	
Balance,	\$2,825 72
For new construction,	3,000 00
<hr/>	
	\$5,825 72

At the annual town meeting held March 27, 1911, there was appropriated: —

For depreciation fund,	\$481 17
For interest on notes,	540 00
For note payments,	1,000 00
For operation, maintenance and repairs,	500 00
For new construction,	3,500 00
<hr/>	
	\$6,021 17

Westfield. — The result of the operation of the plant for the fiscal year ending Jan. 20, 1911, as stated by the manager, was as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$60,402 00
For interest on bonds, notes or scrip,	4,710 00
For depreciation fund (3 per cent. on \$273,290.27),	8,198 71
For bond payments,	6,000 00
<hr/>	
Total,	\$79,310 71

Income: —	
From private consumers,	\$77,900 82
From appropriation for maintenance, .	13,500 00
	<hr/>
	\$91,400 82
<hr/>	
Excess of income and appropriations over expenditures,	
	\$12,090 11

The estimates submitted by the manager for the fiscal year beginning Jan. 21, 1911, were as follows: —

Expenditures: —	
For operation, maintenance and repairs,	\$62,000 00
For interest on bonds, notes or scrip,	5,100 00
For depreciation fund (3 per cent. on \$293,264.64),	8,797 94
For bond payments,	7,000 00
	<hr/>
Total,	\$82,897 94
 Income from private consumers,	
	79,000 00
	<hr/>
Balance,	\$3,897 94

At the annual town meeting held on March 30, 1911, there were appropriated to be paid from the income of the gas and electric works the following items: —

For bonds,	\$7,000 00
For interest,	5,100 00
For electric expenses,	25,000 00
For gas,	32,000 00
For depreciation (\$6,264.24 to be expended for electrical and \$4,000 for gas construction),	10,264 24
For electric power plant,	5,000 00
	<hr/>
	\$84,364 24

And to be included in tax levy the following items: —

For gas and street lamps,	\$15,000 00
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And to be borrowed \$10,000 “for the purpose of increasing and enlarging its electric lighting plant for street lighting purposes by the purchase of transformers, rectifiers, regulators and other street lighting apparatus and equipment.”

MUNICIPAL STATISTICS.

The following table contains the names of the municipalities operating lighting plants on June 30, 1911; the population of each, according to the census of 1910; the kind of supply and the year when the same was begun; the amount invested in the plant since the inception of the enterprise, including that raised by loans and by direct taxation; the total valuation of all estates in town for the year of the return, and the amount per thousand raised by taxation for all purposes. The towns of Ashburnham, Belmont, Groton, Groveland, Hingham, Norwood, Rowley, Shrewsbury, Templeton, Wellesley and West Boylston have only distributing plants, and buy their electricity, the first and ninth named from the Gardner Electric Light Company, the second from the Cambridge Electric Light Company, the third from the Ayer Electric Light Company, the fourth from the Haverhill Electric Company, the fifth from the Weymouth Light and Power Company, the sixth and tenth from the Edison Electric Illuminating Company of Boston, the seventh from the municipal plant of Ipswich, the eighth from the Marlborough Electric Company, and the last from the Connecticut River Transmission Company.

MUNICIPALITY.	Population.	Year of Beginning.	Kind of Supply.	Total Investment to June 30, 1910.	Total Investment to June 30, 1911.	Valuation of Estates.	Tax Rate.
Aashburnham, . . .	2,107	1908, . . .	Electric lighting, .	\$11,799 00	\$11,600 00	\$991,000	\$23 50
Belmont, . . .	5,542	1898, . . .	Electric lighting, .	47,773 00	49,178 00	6,892,580	18 80
Braintree, . . .	8,066	For streets, 1892, . Commercial, 1894,	Electric lighting, .	144,954 00	144,954 00	6,673,282	20 80
Chicopee, . . .	25,401	1896, . . .	Electric lighting, .	196,566 00	201,781 00	13,309,680	19 50
Concord, . . .	6,421	1900, . . .	Electric lighting, .	130,861 00	147,021 00	7,722,011	14 25
Danvers, . . .	9,407	For streets, 1889, . Commercial, 1896,	Electric lighting, .	121,096 00	132,635 00	6,470,425	19 20
Groton, . . .	2,155	1909, . . .	Electric lighting, .	19,675 00	21,123 00	3,963,406	10 00
Groveland, . . .	2,253	1907, . . .	Electric lighting, .	15,050 00	15,100 00	1,163,476	22 00
Hingham, . . .	4,965	1895, . . .	Electric lighting, .	47,283 00	53,549 00	7,827,475	12 80
Holyoke, . . .	57,730	1902, . . .	Gas and electricity, .	1,541,502 00	1,549,226 00	49,862,249	17 00
Hudson, . . .	6,743	1897, . . .	Electric lighting, .	84,958 00	86,715 00	3,974,567	18 80
Hull, . . .	2,103	1894, . . .	Electric lighting, .	162,601 00	174,975 00	6,963,263	15 70
Ipswich, . . .	5,777	1903, . . .	Electric lighting, .	51,472 00	59,511 00	4,786,749	16 00
Mansfield, . . .	5,183	1904, . . .	Electric lighting, .	84,443 00	84,443 00	4,279,189	16 80
Marblehead, . . .	7,338	1895, . . .	Electric lighting, .	175,908 00	181,808 00	9,251,700	22 00

MUNICIPALITY.	Population.	Year of Beginning.	Kind of Supply.	Total Investment to June 30, 1910.	Total Investment to June 30, 1911.	Valuation of Estates.	Tax Rate.
Merrimac,	2,202	1904,	Electric lighting, .	\$20,653 00	\$21,080 00	\$1,321,996	\$26 00
Middleborough,	8,214	1893,	Gas and electricity, .	147,530 00	147,530 00	5,053,595	23 10
Millers Falls,	-	1904,	Electric lighting, .	15,295 00	15,295 00	932,572	3 80
North Attleborough,	9,562	1894,	Electric lighting, .	135,428 00	136,309 00	8,978,465	20 00
Norwood,	8,014	1907,	Electric lighting, .	68,052 00	71,552 00	14,034,280	9 20
Peabody,	15,721 {	For streets, 1892, . Commercial, 1893, }	Electric lighting, .	174,017 00	184,995 00	12,062,250	19 00
Reading,	5,818	1895,	Electric lighting, .	122,927 00	138,377 00	6,338,731	18 40
Rowley,	1,368	1910,	Electric lighting, .	13,092 00	14,401 00	2,831,243	5 50
Shrewsbury,	1,946	1908,	Electric lighting, .	30,574 00	33,243 00	1,709,184	15 40
Taunton,	34,259	1897,	Electric lighting, .	386,787 00	390,437 00	22,780,761	19 50
Templeton,	3,756	1907,	Electric lighting, .	27,012 00	28,112 00	1,683,146	20 25
Wakefield,	11,404	1894,	Gas and electricity, .	267,297 00	265,881 00	10,017,808	18 50
Wellesley,	5,413 {	For streets, 1892, . Commercial, 1906, }	Electric lighting, .	76,969 00	80,569 00	15,110,091	12 00
West Boylston,	1,270	1911,	Electric lighting, .	-	19,670 00	827,040	9 20
Westfield,	16,044	1899,	Gas and electricity, .	264,521 00	279,521 00	10,128,584	18 00

In the following data the financial operations of all the municipal plants in the State are combined from the items relating to the manufacture and sale of gas and electricity in the returns of the last two years: —

Electricity.

	YEAR ENDING JUNE 30.	
	1910.	1911.
INCOME: —		
From sale of commercial arc lights,	\$4,089 72 ¹	\$4,468 25 ¹
sale of commercial incandescent lights,	7,251 87 ¹	4,674 52 ¹
sale of domestic incandescent lights,	274,026 78 ²	272,751 58 ¹
sale of electric power,	208,390 34 ²	282,395 65 ¹
sale to other plants,	185,303 87	218,495 41
rent of meters,	2,526 76	4,435 27
rent of motors,	2,160 11	2,194 48
rent of fixtures,	376 00	—
other sources,	1,910 93	2,098 04
	8,140 19	9,323 33
Total,	\$694,176 57	\$800,836 51
EXPENSES: —		
Coal,	\$175,451 12	\$203,874 13
Oil and waste,	6,278 17	6,579 45
Water,	6,306 71	6,039 89
Wages at station,	111,429 32	122,069 10
Repairs of real estate,	8,130 01	6,263 78
Repairs of steam plant,	20,025 12	16,687 99
Repairs of electric plant,	9,282 01	12,165 34
Station tools and appliances,	3,018 59	4,684 34
Current bought,	65,369 58	74,939 28
Wages for care of lights, etc.,	34,559 53	35,084 88
Repairs of lines and lamps,	53,734 42	64,144 27
Carbons,	3,281 02	2,415 02
Incandescent lamps,	21,904 78	24,332 24
Globes,	1,323 90	935 99
Distribution tools and appliances,	15,199 22	14,200 58
General salaries,	34,678 27	37,697 76
Salaries of municipal light board,	2,562 50	3,205 00
Committee expenses,	87 99	111 63
Auditor's fees,	240 58	58 62
General office expenses,	13,929 12	15,249 11
Rents,	559 13	518 50
Insurance,	12,698 23	14,766 89
Law expenses,	271 10	68 58
Claims,	3 40	25 00
Bad debts,	334 97	564 92
Incidentals,	204 39	543 89
Total,	\$600,863 18	\$667,226 18
Leaving an apparent profit in operating account of	\$93,313 39	\$133,610 33
With which is to be considered the following: —		
Interest on notes and bonds,	82,523 27	87,306 44
Depreciation,	100,628 23	122,668 36
Losses on other items,	2,742 05	4,088 97
Leaving, as the expenditures, for town and city lighting,	\$92,580 16	\$80,453 44
Less gains on jobbing,	614 15	1,536 25
	\$91,966 01	\$78,917 19

¹ By contract.² By meter. Digitized by Google

Gas.

	YEAR ENDING JUNE 30.	
	1910.	1911.
INCOME: —		
From gas sold by meter,	\$241,651 99	\$250,052 36
sold to gas companies,	6,657 90	7,292 70
sales of coke,	15,830 85	10,613 76
sales of tar,	4,160 65	3,739 85
rent of meters,	109 60	78 69
Total,	\$268,410 99	\$271,777 36
EXPENSES: —		
Coal,	\$73,004 02	\$69,426 90
Gas oil,	15,710 18	20,497 17
Purifying materials,	1,397 76	1,091 32
Water,	601 75	564 81
Wages at works,	40,756 27	39,906 64
Repairs, real estate,	1,535 44	1,368 18
Repairs and maintenance at works,	14,764 72	17,480 35
Tools, apparatus and machinery,	2,735 25	1,769 61
Wages of meter takers, clerical labor in distribution department,	5,803 08	6,948 05
Repairs, renewals and maintenance of mains and services,	2,785 05	3,229 52
Distribution tools, etc.,	3,188 49	1,874 32
Repairs and renewals of meters,	2,697 55	4,798 31
Gas stove setting repairs and renewals,	465 98	1,518 00
General salaries,	9,591 26	10,031 02
Auditor's fees,	240 59	53 63
Salaries of municipal light boards,	300 00	300 00
General office expenses,	4,251 34	3,637 57
Insurance,	1,484 76	1,482 91
Law expenses,	25 00	—
Bad debts,	1,806 14	226 44
Incidentals,	17 80	89 73
Total,	\$183,162 43	\$186,294 48
Leaving an apparent profit on the gas business of	\$85,248 56	\$85,482 88
From which is to be deducted: —		
Interest on bonds and notes,	\$21,167 81	\$22,060 28
Depreciation,	25,200 48	32,752 07
Losses on bad bills, etc.,	—	133 39
Making a total of	\$46,368 29	\$54,945 74
Add gains on jobbing,	777 91	1,407 21
Leaving a net gain of	\$47,146 20	\$56,352 95

Aggregates from the balance sheets in the several municipal returns of the last two years show the following facts: —

	YEAR ENDING JUNE 30.	
	1910.	1911.
ASSETS: —		
Electric: —		
Real estate,	\$238,969 04	\$243,830 65
Steam plant,	612,789 60	692,066 74
Electric plant,	466,743 24	511,549 93
Electric lines,	709,550 65	775,384 49
Other plant items,	484,240 76	534,049 37
Materials,	109,910 70	123,686 30
Gas: —		
Real estate,	384,027 17	383,834 57
Machinery,	227,011 57	231,631 22
Street mains,	262,109 94	264,268 52
Gas meters,	107,759 23	113,794 52
Materials,	21,873 02	25,354 45
General cash (or town treasury),	391,339 45	242,705 22
Depreciation cash,	61,898 08	120,181 69
Due for electricity,	103,728 12	110,224 82
Due for gas,	21,780 32	20,707 08
Other accounts due,	15,732 60	17,125 08
Sinking funds,	267,997 47	298,873 81
Deficit,	266,142 38	181,522 76
	\$4,748,603 34	\$4,890,791 22
LIABILITIES: —		
Appropriations for construction,	\$636,908 91	\$676,246 54
for extraordinary repairs,	5,720 10	5,720 10
for bond payments,	421,150 00	447,900 00
for note payments,	261,192 58	291,334 05
for sinking funds,	219,236 76	240,869 80
for fire alarm,	2,354 17	1,715 06
Overdrafts,	261,119 56	267,490 82
Bonds outstanding,	2,379,800 00	2,342,200 00
Notes payable,	392,833 66	432,071 99
Unpaid bills,	43,500 96	68,467 11
Deposits,	7,259 11	9,495 69
Interest due and not paid,	747 50	329 44
Interest accrued but not due,	20,127 68	20,435 50
Other amounts due,	82,382 87	82,382 87
Cash overdrawn,	14,269 48	4,132 25
	\$4,748,603 34	\$4,890,791 22

Price.

The following table shows the prices charged by each municipality for commercial lights on June 30, 1911:—

MUNICIPALITY.	INCANDESCENT LIGHTS.				Are Lights.	Remarks.
	RATES BY METER.			Rates by Contract.		
	Per Kilowatt Hour.	Per Ampere Hour.	Per 16 Candle-power Lamp Hour.			
Ashburnham, . . .	15 to 10 cents.	-	-	-	-	No wiring; no free renewals. No discounts. Power rates, 10 to 5 cents per k. w. h. Minimum charge per month, \$1 for 2 h. p. to \$8 for 10 to 25 h. p.
Belmont, . . .	15 cents.	-	-	-	\$7.50 per month on moonlight schedule.	Discount of 20% on bills for incandescent lights if paid before the 15th of the month. Lamp renewals at cost. Minimum monthly charge of \$1. Power at 10 cents per k. w. h. net where consumption per month is 100 k. w. h. or more; under this amount same prices and discounts as for commercial lights. Meter rental 30 cents per quarter. Minimum charge, including meter rent, \$10 per year. Power at 6 cents per k. w. h. No wiring, nor free renewals. Incandescent lamp renewals free. No wiring. Minimum charge 50 cents per month. Power from 2 to 6 cents per k. w. h. Steam, 33½ cents per 1,000 pounds of water condensed. Minimum charge, \$1 per h. p. per month on all motors installed.
Braintree, . . .	12 cents.	-	-	-	-	Lamp renewals at cost. No wiring. Power at 6 cents per k. w. h.; for cooking and heating, 4 cents per k. w. h.
Chicopee, . . .	12 to 4 cents.	-	-	15 cents to 75 cents per month for 16 c. p. lamp, according to service.	At meter rates,	
Concord, . . .	9 cents.	-	-	-	-	

Minimum charge for light, 75 cents per month; for power, \$1.50 per h. p. per month; for cooking purposes, \$2 per month from April 1 to September 30; \$1 per month from October 1 to March 31; an additional charge of 10% will be made on unpaid bills of 15th of the month.

Discount of 1 cent per k. w. h. if paid in 10 days. Lamp renewals at cost. No wiring. Power at 1½ to 10 cents per k. w. h., according to amount used. Minimum charge, 50 cents per month for light, and \$2 per month for motors. Minimum monthly charge, \$1. No wiring or renewals.

Lamp renewals free. No free wiring. Discount of 1 cent per k. w. h. if paid in 10 days. Minimum charge of \$1 per month. Power rates 13 cents per k. w. h. first 10 k. w. less 1 cent per k. w. h. if paid in 10 days.

Minimum charge, 50 cents per month. No free lamp renewals. Special contract rates for power, from 10 cents to 5 cents per k. w., according to amount used. Wiring charged for according to time and material used.

Discount of 10% on bills for incandescents at contract rates for prompt payment; 2 cents per k. w. h. for incandescents at meter rate if paid before the 10th of the month. First installation of lamps and renewals free, except tungsten lamps. Power, 5 cents per k. w. h., with discounts varying from 20 to 55% according to quantity used. Net rates:

					At meter rates,
Danvers,	11 cents,	-	-	-	-
Groton,	16 to 13 cents,	-	-	-	-
Groveland,	13 cents,	-	-	-	-
Hingham,	-	-	\$15 per year,	-	-
Holyoke,	8 cents,	-	6 or 7 nights per week until 12, \$12 per year; 7 nights per week, run all night, \$24 per year; 8 a. p. lamps, one-half above prices; 24 c. p. lamps, one and one-half above prices; 32 c. p. lamps, double the above prices.	\$80 per year, net,	-

1 Yearly rates 10 cents; 14 cents to summer residents.

discount, or $\frac{1}{2}$ of the 40%, will be allowed to yearly customers irrespective of time of payment. All customers having a gross bill of \$50 or more per month will receive discount of 36% if bill is paid within 10 days from date of bill. Any customer using electricity the entire twelve months of the year at a voltage of 2,200 to 2,800, metered at this voltage and the department not furnishing any apparatus beyond said meter, with the amount of capacity required in either July and August not exceeding the capacity required in either of the other ten months of the calendar year, and with a yearly consumption of 48,000 kilowatts or more, will receive a discount of 75%. Minimum charge of \$10 per year for lighting. Power rates, service or capacity charge, \$30 per season or year per k. w. capacity required, plus 6 cents per k. w. h. for all current used; customers not using power from 7 P.M. to 6 A.M. may use at all other times at 6 cents per k. w. h., with a minimum requirement of \$7 for the season or year.

Discounts of 10 per cent. if paid before 20th of the month. Minimum monthly charge of 50 cents. Lamp renewals free. Wiring at cost plus 10%. Price 10 cents per k. w. h. to one large consumer. Town of Rowley at 6 cents per k. w. h.

Discounts vary from 6 $\frac{1}{2}$ % to 66 $\frac{2}{3}$ %, according to amount of bill, if paid on or before 20th of the month. No discount on monthly bills less than \$2. Minimum charge, \$1 per month for

Ipswich,	.	.	.	12 cents,	.	-	-	-	-
Mansfield,	.	.	.	15 cents,	.	-	50 cents per 16 c. p. lamp per month.	-	-

Outside lights: all night, 16 c. p. lamps, \$1 per month; to 11 o'clock, 50 cents.

MUNICIPALITY.	INCANDESCENT LIGHTS.				Are Lights.	Remarks.
	RATES BY METER.			Rates by Contract.		
	Per Kilowatt Hour.	Per Ampere Hour.	Per 16 Candle-power Lamp Hour.			
Mansfield — Con.	-	-	-	-	-	light; for power, \$2 per month. Power rates 10 cents to 2 cents per k. w. h., according to amount used. Lamp renewals at cost. No wiring.
Marblehead,	15 cents,	-	-	-	15 cents per k. w. h.; \$12 per month flat for each are for short service.	Discounts, if bills are paid on or before 16th of the month: on incandescent lights, 20%; on arc lights, 33½%. Renewals at cost; tungstens 10% less than cost. No wiring: Power rates 6 cents to 3.1 cents, according to amount used. Electric heating rates from 10 cents per k. w. h. to 4 cents. Minimum charge, 50 cents for light and heat and \$2 per month for power.
Merrimac,	20 cents,	-	-	-	-	Discount 25% to 50% according to amount used, if paid before 15th of the month. Minimum charge of \$10 per year. No wiring or free lamps supplied. Power from 3 to 8 cents, according to amount used. Minimum charge, \$18 per year.
Middleborough,	15 cents,	-	-	$\frac{1}{4}$ of a cent per estimated lamp hour.	Base price \$60 per lamp per year. Varies with amount used. \$3 to \$6 per month, time used; by meter, same rate as for other lights.	Power, price 10 cents per k. w. h., with discounts from 5 to 70%, according to amount used. No free lamps or wiring. Minimum monthly charge of \$1.
Millers Falls,	15 cents,	-	-	-	-	No free lamps or wiring. 300 k. w. h. in one month, 12 cents per k. w. h. Power 7 cents to 5 cents per k. w. h., according to amount used. Minimum monthly

North Attleborough,	15 cents, .	-	-	-	At meter rates, .	charge for light, 35 cents; for power, \$2 per month. Discount 10%. Minimum yearly charge for breakdown service, \$6 per k. w. connected; meter rental of 50 cents per month. Power at 10 cents per k. w. h. or 7½ cents per h. p. h., with discounts of from 5 to 70% according to amount used. Minimum charge for power of \$1 per h. p. per month when monthly bill is less than that amount. No free wiring or lamp renewals.
Norwood,	15 cents primary and 5 cents secondary.	-	-	-	At meter rates, .	Net lighting rates; non-contract customers, 11 cents flat per k. w. h.; if monthly consumption exceeds 500 k. w. h., the secondary rate is 5 cents; to customers on yearly contract, primary rate 15 cents per k. w. h.; secondary, 5 cents per k. w. h. for all usage in excess of 400 hours burning of demand per year. Power rates: daily use of demand, first hour 12 cents per k. w. h.; second hour, 8 cents per k. w. h.; remaining usage, 4 cents per k. w. h. Discount on amounts in excess of \$25 per month, 33½%. Large power customers \$2.50 per k. w. demand, and 1½ cents per k. w. h. used. No wiring. Lamp renewals free. Power at special contract rates: minimum of 10 cents per k. w. h. for first 10 k. w. h. of demand per month's use; in excess of that from 5 cents to 1 cent per k. w. h. Discount of 10% if paid before 15th of the month. Free lamp renewals of standard make. No wiring.
Peabody,	13 cents, .	-	-	Minimum charge \$6 per year.	At meter rates, .	

: Fifty-five volt lamps, ½ of a cent; 110 volt lamps, 1½ cents.

: Fifteen cents in Lynnfield.

MUNICIPALITY.	INCANDESCENT LIGHTS.				Aro Lights.	Remarks.
	RATES BY METERS.			Rates by Contract.		
	Per Kilowatt Hour.	Per Ampere Hour.	Per 16 Candle-power Lamp Hour.			
Reading.	15 cents.	-	-	\$1 per month per 16 c. p. lamp, for 4 lights or less.	At meter rates,	Discount of 15% if bill is paid within 15 days. Original installation of lamps renewed free. No wiring. Minimum charge of \$1 per month for 8 months, 50 cents per month for 4 summer months; Lynnfield and North Reading, \$1 per month. Power 10 cents to 3 cents per k. w. h., according to amount used. Minimum charge of \$1 per h. p. per month up to and including 5 h. p.; over 5 h. p., 50 cents per h. p. Cooking and heating 5 cents per k. w. h. less 10% if paid in 15 days; minimum charge for service, \$1 per month. Discount of 16½%. No free renewals or wiring. Minimum yearly charge of \$12. Over 100 k. w. h. per month, 10 cents per k. w. h.; meter rentals, \$1 per month; no wiring; lamps furnished at 10% above cost.
Rowley.	18 cents.	-	-	-	-	From 400 to 750 k. w. h. per month, 11 cents per k. w. h.; above 750 k. w. h., 10 cents per k. w. h. Discount of 1 cent per k. w. h. if paid before 20th of the month. Renewals free. No wiring. Power at 8 cents per k. w. h. by meter, sliding scale, according to amount used, down to 2.3 cents. Minimum monthly charge for light, \$1; for power, \$3.
Shrewsbury.	15 cents.	-	-	-	-	
Taunton.	14 cents.	-	-	Contract \$1 each per month.	One lamp burning 7 nights per week, \$7 per month; more than one light, \$6 each.	

Location	Power	At meter rates of 18 cents per k. w. h.	At meter rates, Fixed charges: \$5 per month per k. w. up to 15 k. w.; \$3 per month per k. w. from 15 to 55 k. w.; \$2.50 per month per k. w. over 55 k. w.; charges for current: 5 cents per k. w. h. up to 1,500 k. w. h. per month; 3 cents per k. w. h. from 1,500 k. w. h. to 5,500 k. w. h.; 2.5 cents per k. w. h. in excess of 5,500 k. w. h. per month.	Minimum monthly charge, \$1. No wiring; renewals at cost.
Templeton,	15 cents residences, 12 cents stores.			
Wakefield,	18 cents,			
Wellesley,	12 cents,			
West Boylston,	12 cents,			

Twenty cents in Lynnfield and North Reading, less 25% — and \$13.50 per light per year for 32 c. p. lamps until midnight.

MUNICIPALITY.	INCANDESCENT LIGHTS.				Are Lights.	Remarks.
	RATES BY METERS.			Rates by Contract.		
	Per Kilowatt Hour.	Per Ampere Hour.	Per 16 Candle-power Lamp Hour.			
Westfield, . . .	12 cents, .	-	-	16 c. p. lamps, burning 7 nights per week until 11 p.m., \$1.25 per month; 6 nights per week until 11 p.m., \$1.15; 5 nights to 9 and 1 night to 11 p.m., \$1; 4 nights to 8 and 2 nights to 11 p.m., 85 cents; 3 nights to 6 p.m., 2 until 9 and 1 night to 11 p.m., 70 cents. Ten c. p. lamps 20% less, 25 c. p. lamps 20% more than above rates.	\$5 per light per month.	Discount 10% if bill is paid on or before 15th of the month. Lamps renewed at cost. Power at 5 cents per k. w. h., with discount of from 10 to 42%, according to k. w. h. used. Minimum charge \$1 per month for light and 75 cents per h. p. per month for power.

Street Lighting by Municipal Plants.

The statutes relating to municipal light plants prescribe that the excess of the estimated annual expense (including the gross expense of operation, maintenance and repair, interest on the debt created to pay for the plant, depreciation, sinking fund or debt requirements, and loss if any, in the operation of the plant during the preceding year) over the estimated income from sales to private consumers shall be included in the annual appropriations for maintenance and in the tax levy. For this excess, which it must thus raise by taxation, the city or town receives its street and public building lighting. In some instances electricity furnished to public buildings is metered, charged at the same rates as to private consumers, and paid out of other appropriations in the same manner as though the plants were privately owned. In some instances also specific appropriations are made for street lighting, presumably with the number and type of lamps to be supplied in view. For these reasons, while it is desirable to know from the standpoint of the city or town as a municipal corporation what it is getting for the money raised for the plant by taxation, and on a basis comparable with the cost to it of lighting its buildings and streets if served by a privately owned plant, such results can only be obtained by estimates of the electricity used in public buildings where not measured, and computations of the cost per street lamp based on the average number of lights used per day and an apportionment between different types of lamps according to the energy theoretically necessary to supply them. In the three pages following, the data used in arriving at these results and the results themselves will be found tabulated.

The second table is devised upon the theory that for all its expenditure the municipality receives only its street lighting and the income from its commercial business, and that the cost of the former to the city or town is the difference between such income and the entire cost of carrying on the business.

The following table shows the number of street lights and their wattage installed on June 30, 1911, and the average number in use throughout the year ending June 30, 1911, with the average number of days and hours the same were burned in the municipalities named:—

Street Lights — Operation.

MUNICIPALITY.	Number of Public Lamps.	Wattage.	Average Daily Number.	Number of Hours per Night.	Number of Nights per Month.
Ashburnham,	100	40	79	4.9	23.0
Belmont,	298	53	326	6.0	27.8
Braintree,	31	250	14	8.3	23.2
Chicopee,	114	588	54	10.7	30.4
Concord,	595	50	421	9.5	30.2
Danvers,	58	40	234	8.8	29.1
Groton,	190	305	119	4.7	25.0
Hingham,	49	550	244	6.1	27.5
Holyoke,	904	50	519	6.8	25.8
Hudson,	25	40	6	10.8	30.4
Hull,	115	60	521	7.5	29.9
Ipswich,	183	75	287	6.0	27.6
Mansfield,	118	525	18	9.9	25.7
Marblehead,	19	40	410	10.9	30.4
Merrimac,	165	50	143	10.4	30.1
Middleborough,	245	75	161	5.8	27.8
Millers Falls,	439	50	169	4.5	23.4
Norwood,	86	112	30	5.7	29.9
Peabody,	6	481	1	7.4	28.3
Reading, { North Reading,	37	50	88	4.3	25.0
Reading, { Reading,	2	100	3	6.1	28.5
Rowley,	100	125	714	6.3	26.5
Shrewsbury,	4	250	407	10.5	30.4
Taunton,	1	500	105	9.6	29.6
Templeton,	13	40	3	10.4	25.6
Wakefield,	12	500	169	10.5	30.4
Wellesley,	88	40	102	5.1	27.2
West Boylston,	3	726	48	10.5	30.4
Westfield,	724	50	146	5.2	24.2
	424	40	326	5.4	25.5
	91	75	1	10.7	30.4
	168	40	207	4.9	25.2
	3	50	418	5.7	26.9
	270	40	48	9.0	29.5
	146	500	179	7.1	27.2
	102	40	33	10.6	30.4
	99	75	131		
	125	480			
	146	40			
	337	40			
	1,116	50			
	36	250			
	3	400			
	197	475			
	171	50			
	429	50			
	48	500			
	320	40			
	5	50			
	343	68			
	140	75			
	97	100			
	179	40			
	44	75			
	131	560			

The following table is compiled to indicate, as nearly as may be from the data available, the cost per lamp for the year ending June 30, 1911, of the electric street lights in the municipalities named, determined by the items shown and upon the average daily number of lights used during the year, as given in the preceding table. Obviously such cost is affected by the profit or loss on the commercial business. The apparent loss in operating is the difference between the operating expense and the income from private consumers. Interest is computed upon the total investment at the beginning of the year, at the rate paid upon the bonds or notes, and depreciation upon the same amount at the rate of 3 per cent. The value of electricity supplied to municipal buildings is allowed at a fair amount, as determined and stated by the respective managers. Whenever the street lights are of different wattages, the total cost obtained in the manner indicated is apportioned to each kind, according to the amount of energy theoretically necessary under average conditions to maintain the lights at the standard candle-power.

MUNICIPALITY.	Net Loss in Operation.	Interest.	Depreciation.	Other Cost Items.	Total.	Less supplied Public Buildings.	Capacity in Candles.	Capacity in Watts.	Cost of Street Lamps per Year.
Ashburnham,	\$631 79 ¹	\$519 16	\$353 97	-	-	\$187 39	40	53	\$11 03
Belmont,	3,477 31	1,910 92	1,433 19	-	\$6,821 42	410 71	200	250	62 08
Braintree,	4,530 44 ¹	5,003 25	4,423 62	-	5,446 43	410 40	1,200	588	122 52
Chicopee,	5,478 94	7,363 64	5,896 98	\$83 63	19,232 19	4,095 70	40	50	57 64
Concord,	4 89 ¹	4,972 72	3,707 03 ⁴	42 27	8,717 13	731 26	1,000	500	7 12
Danvers,	7,169 72 ¹	4,843 84	3,632 88	-	1,307 00	486 45	1,200	305	54 25 ¹
Groton,	1,308 50	762 40	588 55 ⁴	-	2,659 45	144 11	1,200	550	97 75 ¹
Groveland,	1,751 41	677 25	432 86 ⁴	-	2,861 52	82 95	2,400	50	9 15
Hingham,	1,058 38	1,796 75	1,160 19 ⁴	-	4,008 32	141 10	32	40	39
Holyoke,	67,137 18 ¹	31,897 99 ¹	26,581 66 ¹	38 73	-	3,395 66	50	60	58
Hudson,	5,326 80 ¹	3,313 26	2,363 54 ⁴	60 74	409 84	729 40	60	75	5 14
Hull,	3,819 29 ¹	7,154 44	4,848 43 ⁴	110 12	8,293 70	-	32	40	11 44
Ipswich,	141 60	2,058 88	1,417 78 ⁴	-	3,618 26	202 08	60	50	14 30
Mansfield,	292 15 ¹	3,377 72	2,356 45 ⁴	264 80	5,706 82	716 68	112	50	12 23
							1,200	481	5 46
							-	-	52 49
							-	-	-
							32	40	17 72
							300	350	124 41
							16	60	4 20
							32	40	8 71
							200	250	54 46

¹ Gain in operating accounts.

² 4 amperes area.

³ 6.6 amperes area.

⁴ Depreciation less jobbing and other income received. Interest and depreciation here stated are the same per cent. of total interest and depreciation as electric plant assets are of the total combined plant, as shown by the books.

MUNICIPALITY.	Net Loss in Operation.	Interest.	Depreciation.	Other Cost Items.	Total.	Less supplied Public Buildings.	Capacity in Candle-power.	Capacity in Watts.	Cost of Street Lamp per Year.
Marblehead,	825 70 ¹	7,038 32	5,277 24	45 33	11,533 19	1,659 16	25	88	12 55
							32	112	16 01
							60	75	10 70
Merrimac,	938 00 ¹	828 12	619 59	-	507 71	100 00	-	350	49 97 ²
							16	00	1 10
							32	40	73
							32	40	5 15 ⁴
Middleborough,	4,844 64 ¹	5,124 60 ²	3,943 45 ³	58 57	4,181 08	679 97	1,200	500	64 38 ⁴
							32	40	10 16 ⁵
							1,200	500	128 14 ⁶
							32	40	8 31 ⁷
							32	40	1 10
Millers Falls,	889 61 ¹	611 80	433 85 ⁷	-	156 04	-	1,200	726	19 88
North Attleborough,	9,813 95 ¹	5,417 12	3,981 24 ⁷	23 68	-	832 24	-	-	-
Norwood,	8,993 78 ¹	2,992 21	1,561 43 ⁷	-	-	488 65	-	-	4 70
							20	50	3 90 ⁸
Peabody,	535 34	6,612 65	5,220 51	-	12,368 50	2,967 23	32	40	4 36 ⁹
							32	40	49 07 ¹⁰
Reading,	4,339 14 ¹	5,070 74	3,520 52 ⁷	-	4,253 12	450 20	1,200	450	85 ¹¹
							32	75	4 11
Rowley,	305 33	540 02	392 76	-	1,238 11	-	1,200	480	26 37 ¹²
Shrewsbury,	1,422 52	1,131 24	911 89 ⁷	-	2,465 65	277 65	32	40	8 48
Taunton,	26,396 34 ¹	14,504 50	11,603 61	3,214 16	2,925 93	2,795 13	32	40	9 78
Templeton,	659 15 ¹	1,124 50	819 26	-	1,295 71	73 75	-	-	-
Wakefield,	1,805 84	3,998 87 ²	2,715 74 ¹³	-	8,520 45	1,153 85	40	50	7 05
							1,200	500	8 30
							16	50	82 01
Wellesley,	4,657 57 ¹	3,078 76	2,309 07	-	730 26	551 14	25	68	16
							32	40	22
							32	40	13
West Boylston,	638 78	785 80	590 10	-	1,925 68	29 08	80	100	32
Westfield,	2,344 72 ¹	4,200 70 ²	3,405 97 ³	543 56	5,804 51	183 88	32	75	10 65 ¹¹
							60	40	5 56
							2,000	560	41 52

¹ Gain in operating accounts.² Interest and depreciation here stated are the same per cent. of total interest and depreciation as electric plant assets are of the total combined plant, as shown by the books.³ 12 o'clock lights.⁴ All night lights.⁵ North Middleborough.⁶ Depreciation less jobbing and other income received.⁷ Burning nine months only.⁸ 4 ampero area.⁹ In Reading.¹⁰ In North Reading for six months.¹¹ In North Reading for six months.

The towns of Middleborough, Wakefield and Westfield, and the city of Holyoke operate gas plants, the first named since Oct. 31, 1893, the second since Aug. 7, 1894, the third since June 1, 1899, and the last since Dec. 15, 1902.

The plant at Middleborough makes water gas, those at Wakefield and Westfield coal gas, that at Holyoke coal and water gas.

During the year 1911 examinations by the State inspector for candle-power and purity were made eight times in Middleborough, four times in Wakefield, twelve times in Westfield and seventeen times in Holyoke. Impurities prohibited by statute were found five times in Middleborough and twice in Westfield. The candle-power has been found below the legal standard twice in Westfield.

The average price received in Holyoke for gas sold in the year ending June 30, 1911, was \$1.00 per thousand; in Middleborough, \$2.59; in Wakefield, \$1.28; and in Westfield, \$1.20. The cost of gas during the same period, computed by the method applied to the cost of electric lighting in the table on page 223 was, in Holyoke, \$0.898; in Middleborough, \$5.63; in Wakefield, \$1.21; in Westfield, \$1.06.

INSPECTION OF GAS AND GAS METERS.

Gas Inspection.

Following the statutory requirement that the gas shall be tested with a burner best adapted to it, which is at the same time suitable for domestic use, the Board has continued the use of the following burners in candle-power determinations: the Sugg's London Argand burner, sizes D, old style, and D and F, new style, with six or seven-inch chimney, for coal gas, low candle-power water gas and mixed coal and water gases; the Sugg's table-top, eight-foot size, and Bray's "slit-union" jet, seven-foot size, open burners, for the higher candle-power water gases; a small, one-foot size, iron tip open burner for oil gases, and the von Schwarz "Perfection" one-half and three-quarters foot sizes, for acetylene gas.

Of the 899 inspections made during the year ending Dec. 31, 1911, including those of gas supplied by municipal plants, 252 were made by the chief inspector.

The following tables contain the data obtained by these examinations. For convenience of comparison the oil gas and acetylene gas companies are shown in separate tables. The Middleborough plant appears in two tables because of a change during the year in the kind of gas made. In the ammonia column, 1. — means that the gas did not contain as much as one grain of ammonia per hundred cubic feet.

Coal-gas Companies.

COMPANY.	Number of Inspection made.	CANDLE-POWER.			GRAINS PER ONE HUNDRED FEET OF GAS OF —	
		Average.	Highest.	Lowest.	Sulphur.	Ammonia.
Adams,	10	18.21	22.2	15.5	14.84	1.63
Amesbury,	7	20.37	23.9	17.7	8.06	1.—
Amherst,	5	20.52	22.0	19.1	9.30	1.—
Arlington,	11	19.03	20.4	16.7	8.20	1.—
Athol,	5	21.16	22.1	20.1	6.58	1.—
Attleboro,	12	17.11	17.7	16.4	18.20	1.—
Beverly,	18	16.46	18.4	14.4	23.50	1.—
Blackstone,	2	18.60	19.0	18.2	8.55	1.—
Boston,	26	18.42	20.3	16.7	17.59	1.—
Brockton,	18	18.45	21.5	16.4	11.83	1.—
Cambridge,	24	18.20	19.1	17.0	16.65	1.—
Charlestown,	22	16.71	18.2	15.7	17.57	2.22
Chicopee,	11	17.12	17.7	16.3	18.74	1.—
Citizens' (Nantucket),	3	17.86	19.3	16.8	11.10	1.—
Citizens' (Quincy),	15	17.78	18.9	16.8	17.81	1.—
Clinton,	10	20.36	25.4	17.6	8.84	1.—
Danvers,	2	17.40	18.5	16.3	16.65	1.—
Dedham,	15	17.58	18.2	16.5	18.26	1.—
East Boston,	35	17.59	18.8	16.3	18.74	1.—
Easthampton,	11	16.69	18.5	13.5	21.39	1.—
Fall River,	24	19.79	22.3	17.7	7.13	1.—
Fitchburg,	14	21.13	28.4	17.7	13.33	1.—
Framingham,	18	16.88	22.3	13.7	20.19	1.—
Gardner,	7	21.58	24.3	18.8	9.56	1.—
Gloucester,	12	19.27	22.9	16.4	16.64	1.—
Greenfield,	11	17.62	18.3	16.3	9.20	1.—
Haverhill,	17	19.32	23.0	16.1	8.04	1.—
Holyoke, ¹	17	18.22	20.7	16.7	16.57	1.—
Ipswich,	7	20.16	25.9	16.8	6.00	1.—
Lawrence,	19	18.22	19.2	16.9	14.13	1.—
Leominster,	9	20.90	23.6	18.4	8.58	1.—
Lexington,	7	20.08	21.4	18.3	7.48	1.—
Lowell,	21	17.84	18.9	16.7	15.72	1.—
Lynn,	30	18.04	19.5	16.0	18.10	1.—
Malden,	23	17.37	18.8	16.1	16.18	1.—
Marlborough,	14	16.82	18.4	15.1	15.36	4.30
Middleborough, ¹	3	18.33	19.7	17.1	9.73	1.—
Milford,	16	16.74	18.1	15.2	12.72	5.94
Natick,	12	16.58	18.4	13.0	18.68	1.—
New Bedford,	18	18.37	19.3	17.5	13.26	1.00
Newburyport,	15	16.57	17.9	14.8	18.97	1.24
Newton,	33	17.95	19.5	16.4	17.29	1.—
North Adams,	13	18.23	21.3	15.1	12.88	4.98
Northampton,	13	17.82	19.7	15.5	13.79	1.—
North Attleborough,	13	16.91	18.7	15.4	17.55	1.92
Norwood,	15	16.45	18.2	13.8	14.53	1.—
Otis (Ware),	8	16.89	19.3	14.7	15.86	3.09
People's (Stoneham),	7	16.60	18.1	15.3	13.64	1.91
Pittsfield,	15	19.25	21.3	17.8	15.27	1.—
Plymouth,	12	16.36	18.2	13.9	15.33	4.51
Salem,	16	17.54	18.4	16.1	20.42	1.—
Spencer,	7	21.17	23.6	19.4	11.33	1.—
Springfield,	18	17.32	18.9	16.1	16.23	1.—
Suburban (Revere),	12	16.62	18.1	16.1	17.43	1.—
Taunton,	15	17.21	18.6	16.4	22.79	1.—
Vineyard (Oak Bluffs),	3	18.13	21.2	15.3	9.70	1.—
Wakefield, ¹	4	17.18	18.7	16.0	13.90	1.78
Webster,	19	20.74	26.1	18.5	7.79	1.—
Westfield, ¹	12	17.15	19.1	14.9	16.94	1.—
Williamstown,	11	17.69	20.8	12.9	15.57	2.47
Woburn,	11	16.97	18.2	16.2	15.25	1.46
Worcester County,	8	21.39	25.5	19.4	9.34	1.—
Worcester,	28	17.98	19.1	17.0	16.29	1.—

¹ Municipal plant.

Oil Gas.

COMPANY.	Number of Inspections made.	Average Candle-power.
Edison (Brockton),	6	35.43
Middleborough, ¹	5	26.14

Acetylene Gas.

Georgetown,	2	190.40
Hyannis,	2	188.40
Marion,	3	189.16
Vineyard Haven,	3	188.00

¹ Municipal plant.*Deficient Candle-power.*

[Legal standard, 16 minimum.]

COMPANY.	Total Number of In- spections.	Candle- power.	Date.
Adams,	10	15.5	Mar. 9
Adams,	-	15.7	Apr. 21
Beverly,	18	14.8	May 24
Beverly,	-	14.7	Oct. 4
Beverly,	-	14.4	Oct. 13
Beverly,	-	14.6	Nov. 22
Charlestown,	22	15.7	Dec. 5
Easthampton,	11	14.7	Jan. 19
Easthampton,	-	13.5	Dec. 29
Framingham,	18	14.4	Apr. 6
Framingham,	-	13.7	May 5
Marlborough,	14	15.1	Jan. 18
Marlborough,	-	15.4	Oct. 11
Milford,	16	15.8	Jan. 31
Milford,	-	15.5	Mar. 23
Milford,	-	15.2	Apr. 6
Milford,	-	15.7	Oct. 27
Natick,	12	15.3	Jan. 12
Natick,	-	15.3	Apr. 25
Natick,	-	13.0	Oct. 13
Newburyport,	15	14.8	Feb. 2
Newburyport,	-	15.7	Oct. 13
Newburyport,	-	15.2	Oct. 24
Newburyport,	-	14.8	Dec. 21
North Adams,	13	15.1	Apr. 12
Northampton,	13	15.5	Dec. 14
Northampton,	-	15.8	Dec. 29
North Attleborough,	13	15.6	Feb. 3
North Attleborough,	-	15.8	Feb. 16
North Attleborough,	-	15.4	Oct. 20
North Attleborough,	-	15.5	Nov. 2
Norwood,	13	14.7	Jan. 25
Norwood,	-	15.8	Feb. 1
Norwood,	-	14.9	Apr. 26
Norwood,	-	15.7	May 12
Norwood,	-	13.8	Dec. 22

Deficient Candle-power — Concluded.

COMPANY.	Total Number of In- spections.	Candle- power.	Date.
Otis (Ware),	8	14.7	Jan. 21
People's (Stoneham),	7	15.3	Jan. 10
People's (Stoneham),	—	15.8	Jan. 28
Plymouth,	12	15.4	Feb. 9
Plymouth,	—	15.8	Feb. 28
Plymouth,	—	15.1	May 17
Plymouth,	—	14.7	June 2
Plymouth,	—	13.9	Oct. 17
Vineyard (Oak Bluffs),	3	15.3	Mar. 15
Westfield, ¹	12	14.9	Jan. 18
Westfield, ¹	—	15.7	Mar. 2
Williamstown,	11	12.9	Apr. 12
Williamstown,	—	15.4	Apr. 21

¹ Municipal plant.*Excesses of Sulphur in Grains per 100 Cubic Feet.*

[Legal maximum, 30 grains.]

COMPANY.	Total Number of In- spections.	Quantity (Grains).	Date.
Beverly,	18	34.1	Dec. 5
Beverly,	—	33.6	Dec. 20
Chicopee,	11	48.2	Apr. 28
Easthampton,	11	31.8	Dec. 6
Framingham,	18	33.3	Oct. 27
Lynn,	30	36.6	Aug. 4
Springfield,	28	31.7	Apr. 28
Taunton,	15	30.3	Oct. 5

Ammonia in Grains per 100 Cubic Feet.

[Legal maximum, 10 grains.]

Charlestown,	22	10.9	May 2
Marlborough,	14	11.7	May 19
Milford,	16	12.2	Jan. 11
Milford,	—	12.7	Mar. 4
North Adams,	13	14.3	Apr. 20
North Adams,	—	19.2	May 26
Plymouth,	12	11.4	June 2
Williamstown,	11	14.3	June 8

Sulphuretted Hydrogen Present.

[Legal standard, none allowed.]

COMPANY.	Total Number of In- spections.	Date.
Amesbury,	7	Dec. 21
Amherst,	5	Oct. 5
Arlington,	11	Jan. 24
Arlington,	—	Feb. 11
Athol,	5	Dec. 27
Brockton,	18	Oct. 25
Clinton,	10	Jan. 18
Clinton,	—	Aug. 9
Edison (Brockton),	6	Feb. 8
Edison (Brockton),	—	Sept. 13
Edison (Brockton),	—	Oct. 14
Fall River,	24	Dec. 30
Framingham,	18	May 18
Framingham,	—	July 26
Framingham,	—	Aug. 15
Framingham,	—	Oct. 27
Framingham,	—	Dec. 12
Gardner,	7	Jan. 27
Gardner,	—	Feb. 14
Gardner,	—	Mar. 21
Gardner,	—	May 4
Gardner,	—	June 13
Gardner,	—	Oct. 18
Gardner,	—	Dec. 7
Greenfield,	11	Dec. 14
Greenfield,	—	Dec. 22
Ipswich,	7	Feb. 3
Lowell,	21	Apr. 4
Malden,	23	Dec. 11
Marlborough,	14	Aug. 9
Middleborough, ¹	8	May 10
Middleborough,	—	June 6
Middleborough,	—	Aug. 18
Middleborough,	—	Sept. 29
Middleborough,	—	Dec. 6
Norwood,	15	Aug. 3
Norwood,	—	Aug. 23
Norwood,	—	Sept. 13
Norwood,	—	Sept. 30
Plymouth,	12	June 2
Salem,	16	Oct. 24
Salem,	—	Dec. 19
Spencer,	7	Feb. 16
Spencer,	—	Mar. 3
Vineyard (Oak Bluffs),	3	Oct. 6
Webster,	19	Jan. 26
Webster,	—	Sept. 8
Webster,	—	Sept. 22
Webster,	—	Nov. 15
Webster (Southbridge station),	—	Nov. 15
Webster,	—	Dec. 29
Webster (Southbridge station),	—	Dec. 29
Westfield, ¹	12	Sept. 27
Westfield, ¹	—	Nov. 10

¹ Municipal plant.

EUDIOMETRIC ANALYSES.

The following eudiometric analyses have been made during the year: —

Number.	COMPANY.	Date.	Candle-power.	Illuminants.	Marsh Gas.	Hydrogen.	Carbonic Oxide.	Nitrogen.	Oxygen.	Carbonic Acid.
1	Beverly,	June 23	16.5	4.15	35.27	51.00	6.24	1.72	0.23	1.39
2	Blackstone, . . .	July 14	19.0	9.59	15.20	36.12	32.18	4.38	-	2.53
3	Chelsea Div., E. Boston,	May 2	17.8	8.93	29.77	32.26	17.30	8.23	0.10	3.41
4	Chelsea Div., E. Boston,	Oct. 23	17.0	9.42	27.00	34.06	19.06	6.37	-	4.09
5	Easthampton, . .	May 24	16.0	4.71	35.69	51.40	5.21	1.83	-	1.16
6	Gloucester, . . .	Feb. 10	17.2	5.24	35.33	49.60	5.39	3.07	-	1.37
7	Gloucester, . . .	May 3	17.0	3.95	36.09	50.75	6.11	2.08	-	1.02
8	Gloucester, . . .	Aug. 17	22.9	11.25	19.42	32.38	27.22	4.94	-	4.79
9	Marlboro-Hudson, .	June 20	16.8	4.13	35.43	50.40	7.58	1.19	-	1.27
10	Plymouth, . . .	June 2	14.7	4.17	36.40	51.01	5.60	1.75	-	1.07
11	Williamstown, . .	May 5	17.2	4.87	37.72	45.44	7.07	3.50	-	1.40
12	Worcester County, .	Feb. 15	20.8	15.54	15.54	34.12	24.98	4.86	-	4.96

Samples numbered 1, 9 and 10 were of unenriched coal gas; numbers 5, 6 and 7 of coal gas enriched with benzol. Number 11 was a benzol-enriched coal gas delivered from North Adams under a pressure of several pounds, which was subsequently reduced in the Williamstown distributing mains. Numbers 3 and 4 were mixtures of coal and water gases. Number 2 was taken at the time of first inspection of the water gas distributed in Blackstone. Numbers 8 and 12 were of water gas taken at the time of first inspection, after the installation of new machines at Gloucester and Palmer.

A study of the inspections of the companies made during the five years from 1907 to 1911, inclusive, shows the following facts: —

	1907.	1908.	1909.	1910.	1911.
Number of inspections made,	977	1,018	929	890	899
Number of companies subject to inspection,	67	68	68	68	68
Number of companies showing deficiency in candle-power,	18	16	15	25	19
Highest candle-power, not including oil-gas and acetylene-gas companies,	27.8	24.7	26.9	27.7	28.4
Lowest candle-power, not including oil-gas and acetylene-gas companies,	12.4	12.3	12.8	10.6	12.9
Average candle-power, not including oil-gas and acetylene-gas companies,	18.14	18.01	18.30	18.00	18.26
Average candle-powers:—					
Coal gas, 18 companies,	17.01	16.92	17.11	16.89	16.88
Water gas, 19 companies,	20.61	20.30	20.66	20.18	20.00
Mixed coal and water gas, 29 companies,	18.23	17.67	18.23	17.89	17.99
Number of companies showing sulphuretted hydrogen,	10	11	15	14	22
Number of companies showing excess of sulphur,	27	29	—	1	7
First six months,	—	—	20	—	—
Second six months,	—	—	2.	—	—
Number of companies showing excess of ammonia,	7	4	6	3	6
Largest amount of sulphur,	30.7	38.9	31.3	32.6	48.2
Smallest amount of sulphur,	3.7	5.0	3.0	3.2	4.5
Average amount of sulphur,	12.29	14.11	13.86	13.92	14.26
First six months,	—	—	14.75	—	—
Second six months,	—	—	13.48	—	—
Largest amount of ammonia,	29.4	17.4	16.3	19.2	19.2
Smallest amount of ammonia,	1.—	1.—	1.—	1.—	1.—
Average amount of ammonia,	1.83	1.43	1.—	1.17	1.20

Oil-gas companies:—

	1907.	1908.	1909.	1910.	1911.
Highest candle-power,	49.1	49.6	46.8	45.2	39.6
Lowest candle-power,	23.9	20.4	19.8	18.0	32.5
Average candle-power,	33.53	33.18	29.33	20.94	30.79
Number showing sulphuretted hydrogen,	1	3	2	3	2

Gas Meter Inspection.

From Nov. 30, 1910, to Nov. 30, 1911, inclusive, there were 86,730 meters inspected, including 27,880 prepayment meters, as compared with 82,643 during the preceding twelve months. Meters which pass inspection are stamped with a brass badge and a wax seal, which give the inspection number and date. These are so placed that the rate of registration cannot be changed unless both are mutilated. Whenever meters are opened for any purpose, they must be again tested and sealed before being placed in use by the company. Of the meters examined in the year ending Nov. 30, 1910, 457 were known as complaint meters; the others being new, or recently repaired. The following table exhibits a comparison of the number inspected annually during five years:—

	1907.	1908.	1909.	1910.	1911.
Complaint meters, .	356 ¹	438	415	328	457
Total number, . .	59,475 ¹	58,875	73,904	82,643	86,730

¹ For eleven months.

Three meter provers and 7 experimental wet meters for photometric use were calibrated during the year.

COMPLAINT METERS.

Of complaint meters, 457 were inspected during the year ending Nov. 30, 1911, as compared with 328 in the preceding year ending Nov. 30, 1910. Of these, 4 would pass gas, but would not register. The error of 1, owing to a defect in the registering mechanism, could not be accurately determined. The average error of the remaining 452 meters was .59 per cent. fast; 152, or 33.63 per cent., were fast, the average error being 4.50 per cent.; 64, or 14.16 per cent., were slow, the average error being 6.70 per cent.; 236, or 52.21 per cent., were correct within the legal limits, being no more than 2 per cent. fast or slow.

Of the fast meters, 121 registered between 2 and 5 per cent., 28 between 5 and 10 per cent. and 3 between 10 and 15 per cent. fast. Of the slow meters, 44 registered between 2 and 5 per cent., 15 between 5 and 10 per cent., 2 between 10 and 15 per cent., 1 was 18 per cent., 1, 25 per cent., and 1, 65 per cent. slow.

A more detailed statement of the meter-testing work appears in the following financial statement for the year ending Nov. 30, 1911:—

Number of Each Size, and Fees for Testing Meters.

Number.	Size.	Fees.
1,	2 lights,	
27,898,	3 lights,	} at 25 cents, . . . \$20,118 50
52,575,	5 lights,	
3,938,	10 lights,	
1,161,	20 lights,	} at 30 cents, . . . 1,819 20
589,	30 lights,	
38,	45 lights,	
290,	50 lights,	} at 50 cents, . . . 66 50
48,	60 lights,	
43,	80 lights,	
90,	100 lights,	
27,	150 lights at 90 cents,	24 30
14,	200 lights at \$1.25,	17 50
7,	250 lights at \$1.50,	10 50
5,	300 lights at \$1.70,	8 50
6,	500 lights at \$2.50,	15 00
86,730		\$22,080 00
7,	photometer meters, at \$2,	14 00
3,	5-foot meter provers, at \$6.50,	19 50
86,740		\$22,113 50

OPERATING ACCOUNTS.

Income, 86,730 meters, 7 photometer meters and 3 meter provers,	\$22,113 50
Expenses, including salaries of gas and gas meter inspectors,	14,463 44
Balance,	\$7,650 06

CASH ACCOUNT.

Received for meters, etc., tested,	\$22,113 50
Received for interest on bank balances,	15 52
	\$22,129 02
Paid treasurer:—	
December, 1910,	\$1,620 25
January, 1911,	1,211 90
February, 1911,	1,343 75
March, 1911,	1,256 70
April, 1911,	1,995 00
May, 1911,	2,122 65
June, 1911,	2,272 40
July, 1911,	2,085 75
August, 1911,	1,826 60
September, 1911,	2,255 60
October, 1911,	1,625 95
November, 1911,	2,512 47
	\$22,192 02

TESTING OF ELECTRIC METERS.

The testing of electric meters upon the request of customers or companies, under authority of sections 36 and 37 of chapter 121 of the Revised Laws, has been continued with the same regulations and the same expert assistance as heretofore. The following table exhibits a comparison of the number inspected during the years that the law has been in force:—

1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
6 ¹	8	29	67	50	36	29 ²	35	42	33	52

¹ For six months.² To November 30.

The results of the inspections during the year ending Nov. 30, 1911, are shown in the following table:—

IN- SECTION NUMBER.	Capacity of Meter (Amperes).	AT ONE-FIFTH LOAD.		AT ONE-HALF LOAD.		AT FULL LOAD.	
		Per Cent. Fast.	Per Cent. Slow.	Per Cent. Fast.	Per Cent. Slow.	Per Cent. Fast.	Per Cent. Slow.
344,	5	3.4	—	1.4	—	2.7	—
345,	5	.5	—	1.6	—	.9	—
347,	5	.9	—	.9	—	1.1	—
351,	5	.9	—	.9	—	1.7	—
356,	5	3.2	—	1.9	—	2.3	—
357,	5	2.9	—	3.1	—	4.2	—
358,	5	.9	—	—	.6	—	.5
363,	5	1.4	—	.9	—	.5	—
366,	5	—	9.5	—	5.1	—	1.5
370,	5	—	15.5	—	—	89.5	—
388,	5	—	10.3	—	4.4	—	4.4
387,	7 ¹	—	4.6	—	2.8	—	1.6
389,	7 ¹	38.3	—	32.7	—	30.8	—
338,	10	—	—	1.4	—	—	1.0
343,	10	—	2.4	.3	—	.3	—
350,	10	1.9	—	2.3	—	1.4	—
352,	10	—	1.5	.5	—	.1	—
355,	10	3.4	—	3.6	—	2.7	—
359,	10	1.1	—	2.0	—	.7	—
361,	10	2.5	—	2.0	—	1.7	—
365,	10	—	1.3	—	1.3	—	1.0
368,	10	2.7	—	1.0	—	.9	—
378,	10	2.1	—	1.5	—	.9	—
382,	10	—	1.7	—	.7	—	.8
339,	15	3.4	—	1.8	—	2.4	—
362,	15	4.2	—	2.6	—	1.5	—
367,	15	.3	—	.1	—	1.6	—
375,	15	—	—	—	3.5	—	2.4
377,	15	—	1.0	—	.7	—	1.1
380,	15	1.7	—	1.8	—	2.0	—
353,	25	4.2	—	4.3	—	4.0	—
360,	25	—	1.6	—	.9	—	1.4
367,	25	1.6	—	.6	—	—	.9
373,	25	—	.2	1.3	—	.8	—
376,	25	—	.9	.4	—	—	.5
379,	25	—	2.8	—	.2	.4	—
381,	25	—	1.4	—	1.5	—	1.2
383,	25	—	2.2	—	1.1	—	1.1
386,	25	—	5.9	.4	—	5.5	—
349,	50	—	.7	—	.7	—	.2
354,	50	2.4	—	3.9	—	3.7	—
372,	50	—	1.2	—	.3	—	1.0
346,	75	—	1.5	—	1.2	.5	—
348,	75	.4	—	.2	—	1.2	—
371,	75	—	—	—	—	2.5	—
336,	100	1.0	—	3.1	—	—	—
384,	100	—	—	—	—	1.0	—
384,	150	—	—	—	—	—	2.2
385,	150	—	—	—	—	.7	—
340,	600	—	—	6.0	—	—	—
341,	1,200	—	—	—	—	—	.6
342,	2,000	—	—	—	—	—	—

¹ Day load.

² Day and night load.

³ Correct.

⁴ Motor meter tested under normal conditions.

⁵ Not obtainable.

⁶ Motor meter tested under running conditions.

⁷ Tested by use of storage battery. At half load.

⁸ Tested under running conditions.

⁹ Tested under running conditions and found correct.

All fees received during the year from applicants for meters, amounting to \$107.50, have been paid to the Treasurer of the Commonwealth. The services and expenses of the inspector for the year amounted to \$399.79, being \$292.29 above the amount received for fees. The Board has also expended during the year for other expenses for this work \$14.57. Inspections Nos. 344, 345, 347, 352, 353, 354, 357, 358, 359, 360, 363, 368, 369 and 373 were made upon the request and at the initial expense of the companies.

VIOLETIONS OF LAW.

The following cases of violations of the statutes have occurred since the last annual report: by the Amesbury and Salisbury Gas Company, the Marlborough Electric Company, the Westborough Gas and Electric Company and the municipalities of Belmont, Braintree, Hull, Mansfield, North Attleborough, Rowley and Westfield, in neglecting to make their annual returns to the Board within the time required by law; by the Gardner Gas, Fuel and Light Company, the Norwood Gas Company and the municipality of Middleborough, in distributing gas containing sulphuretted hydrogen; by the Vineyard Lighting Company, in distributing gas with an illuminating power of less than sixteen standard English candles.

ACCIDENTS.

The abstracts of accidents caused by the gas or electricity manufactured or supplied by companies, persons and municipalities engaged in the manufacture and sale of gas or electricity for light or fuel, whereby employees or other persons have been injured, killed or rendered insensible, will be found in Appendix G. Of those caused by gas, 146 were fatal and 214 non-fatal; 78 of the fatal were cases of suicide and 18 of the non-fatal were apparently due to suicidal intent. Of the accidents caused by electricity, 27 were fatal and 27 non-fatal. Of the non-fatal accidents caused by gas, 19 were employees of the companies. Eleven of the fatal electric accidents and 14 of the non-fatal cases were employees of the companies.

CASES PENDING BEFORE THE BOARD.

Petition of consumers against Plymouth Gas Light Company for reduction in price of gas.

Appeal of the Ayer Electric Light Company from a decision of the board of selectmen of Ayer in favor of the Connecticut River Transmission Company.

Petition of the Salem Electric Lighting Company for approval of an issue of new capital stock.

Petition of the Arlington Gas Light Company for approval of an issue of new capital stock.

Petition of the Fall River Gas Works Company for approval of an issue of new capital stock.

Appeal of the Athol Gas and Electric Company from a decision of the selectmen of Athol in favor of the L. S. Starrett Company.

Petition of the mayor of Worcester against the Worcester Electric Light Company for a reduction in the price of street lights.

Petition of municipal council of Haverhill against the Haverhill Gas Light Company for a reduction in price of gas.

Petition of consumers against the Woburn Gas Light Company for a reduction in the price of gas and an improvement in service.

Petition of consumers against the Haverhill Gas Light Company for a reduction in the price of gas.

Petition of the Worcester County Gas Company for approval of an issue of new capital stock.

Petition of Frederick M. Briggs against the Boston Consolidated Gas Company for a supply of gas.

Petition of the Gloucester Electric Company for approval of an issue of new capital stock.

Petition of the Fall River Electric Light Company for approval of an issue of new capital stock.

Petition of consumers against the Natick Gas Light Company for a reduction in price of gas and improvement in quality.

Petition of the Boston Consolidated Gas Company for appro-

val of application of proceeds from the sale of certain land to the payment of obligations.

Petition of consumers against the Suburban Gas and Electric Company for reduction in price of electricity.

Petition of the Worcester Suburban Electric Company for approval of an issue of new capital stock.

Petition of selectmen of Attleborough against the Attleboro Gas Light Company Corporation for reduction in the price of gas.

Petition of the Dedham and Hyde Park Gas and Electric Light Company for approval of an issue of new capital stock.

Petition of the Ware Electric Company for approval of an issue of new capital stock.

Petition of consumers against the Edison Electric Illuminating Company of Brockton for reduction in price of electricity.

Petition of consumers against the Electric Light and Power Company of Abington and Rockland for reduction in price of electricity.

Petition of the Hyannis Gas Company for approval of an issue of new capital stock.

Petition of selectmen of Framingham against the Framingham Gas, Fuel and Power Company for reduction in price of gas.

Petition of the Weymouth Light and Power Company for approval of an issue of new capital stock.

Petition of the Amherst Gas Company for approval of an issue of new capital stock.

Appeal of the Gloucester Electric Company from a decision of the municipal council of Gloucester in favor of the Oceanside Company.

Petition of the Foxboro Electric Company for authority to consolidate with the Union Electric Light Company of Franklin.

Petition of the Foxboro Electric Company for approval of an issue of new capital stock.

Petition of the Brockton Gas Light Company for approval of an issue of new capital stock.

Appeal of the Worcester Electric Light Company from a

decision of the mayor and board of aldermen of Worcester in favor of Alfred S. Lowell.

Petition of the mayor of Malden against the Malden Electric Company for reduction in price of electricity for street lighting.

Petition of the Fitchburg Gas and Electric Light Company for approval of an issue of new capital stock.

Petition of the Haverhill Electric Company for approval of an issue of new capital stock.

Petition of the Malden Electric Company for approval of an issue of new capital stock.

Petition of the Malden and Melrose Gas Light Company for approval of an issue of new capital stock.

Petition of the Malden and Melrose Gas Light Company for authority to consolidate with the People's Gas and Electric Company of Stoneham.

Petition of the People's Gas and Electric Company of Stoneham for approval of an issue of new capital stock.

Petition of the Springfield Gas Light Company for approval of an issue of new capital stock.

Petitions of the Springfield Gas Light Company and the Chicopee Gas Light Company for authority to consolidate.

Petition of the Chicopee Gas Light Company for approval of an issue of new capital stock.

Petition of the Gardner Gas, Fuel and Light Company for approval of an issue of new capital stock.

Appeal of the Cambridge Electric Light Company from a decision of the board of aldermen of Cambridge in favor of the George W. Gale Lumber Company.

Petition of the Natick Gas Light Company for approval of an issue of new capital stock.

Respectfully submitted,

FORREST E. BARKER.
MORRIS SCHAFF.
ALONZO R. WEED.

JAN. 3, 1912.

APPENDICES.

APPENDIX A.—OFFICERS OF COMPANIES.

In accordance with the provisions of section 7 of chapter 121 of the Revised Laws, as amended by chapter 293 of the Acts of 1911, the Board herewith presents the names and addresses of the principal officers and directors of the companies which are engaged in the manufacture and sale of gas or electricity for light or heat from the returns made as of June 30, 1911:—

THE ELECTRIC LIGHT AND POWER COMPANY OF ABINGTON AND ROCKLAND.

PRINCIPAL OFFICERS.

Frederick A. Pratt, *President*, West Newton, Mass. A. Stuart Pratt, *Vice-President*, West Newton, Mass. Henry B. Sawyer, *Treasurer*, Brookline, Mass. Chester M. Clark, *Clerk*, Boston, Mass.

DIRECTORS.

Henry G. Bradlee, Brookline, Mass. Joseph L. Greenwood, North Abington, Mass. Lot Phillips, West Hanover, Mass. A. Stuart Pratt, West Newton, Mass. Dwight P. Robinson, Brookline, Mass. James W. Spence, Rockland, Mass. Frederick S. Pratt, West Newton, Mass. Guy E. Tripp, Hingham, Mass. Charles F. Wallace, Brookline, Mass.

ADAMS GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. N. Burnell, Malden, Mass.

AMERICAN WOOLEN COMPANY.

PRINCIPAL OFFICERS.

William M. Wood, *President*, Andover, Mass. Frederick Ayer, *Vice-President*, Beverly, Mass. William H. Dwelley, Jr., *Treasurer*, Brookline, Mass. William H. Dwelley, Jr., *Clerk*, Brookline, Mass.

DIRECTORS.

William M. Wood, Andover, Mass. Frederick Ayer, Beverly, Mass. John Hogg, Boston, Mass. George E. Bullard, Boston, Mass. Andrew G. Pierce, Jr., New Bedford, Mass. Francis W. Kittridge, Boston, Mass. J. Clifford Woodhull, Summit, N. J. George L. Shepley, Providence, R. I. Charles H. Tenney, New York, N. Y.

AMESBURY ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Jacob F. Spalding, *President*, Salisbury, Mass. Benj. F. Sargent, *Treasurer*, Amesbury, Mass. Benj. F. Sargent, *Clerk*, Amesbury, Mass.

DIRECTORS.

Jacob F. Spalding, Salisbury, Mass. Benj. F. Sargent, Amesbury, Mass. Harland A. Sawyer, Amesbury, Mass. George E. Collins, Amesbury, Mass. John Currie, Amesbury, Mass. A. C. Webster, Amesbury, Mass. E. H. Mather, Boston, Mass.

AMESBURY AND SALISBURY GAS COMPANY.

PRINCIPAL OFFICERS.

Charles W. Morse, *President*, Haverhill, Mass. John Cashman, *Treasurer*, Haverhill, Mass. John Cashman, *Clerk*, Haverhill, Mass.

DIRECTORS.

Charles W. Morse, Haverhill, Mass. John Cashman, Haverhill, Mass. Daniel Cashman, Haverhill, Mass.

AMHERST GAS COMPANY.

PRINCIPAL OFFICERS.

Edwin D. Marsh, *President*, Amherst, Mass. C. Fred Deuel, *Treasurer*, Amherst, Mass. C. Fred Deuel, *Clerk*, Amherst, Mass.

DIRECTORS.

Edwin D. Marsh, Amherst, Mass. C. Fred Deuel, Amherst, Mass. George Cutler, Jr., Amherst, Mass. Frederick Tuckerman, Amherst, Mass. Mason A. Dickinson, Amherst, Mass. Henry S. Thompson, Concord, Mass.

ARLINGTON GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. N. Burnell, Malden, Mass.

ATHOL GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Josiah Q. Bennett, *President*, Cambridge, Mass. Elihu G. Loomis, *Vice-President*, Bedford, Mass. Paul B. Webber, *Treasurer*, Bedford, Mass. Edward C. Mason, *Clerk*, Bedford, Mass.

DIRECTORS.

Josiah Q. Bennett, Cambridge, Mass. Alonzo P. Weeks, Winchester, Mass. Elihu G. Loomis, Bedford, Mass. Bowen Tufts, Arlington, Mass. Paul B. Webber, Bedford, Mass. Edward C. Mason, Bedford, Mass. M. Bernard Webber, Bedford, Mass.

ATTLEBORO GAS LIGHT CO. CORPORATION.

PRINCIPAL OFFICERS.

Everett S. Capron, *President*, Attleborough, Mass. Albert W. Sturdy, *Vice-President*, Attleborough, Mass. Albert W. Sturdy, *Treasurer*, Attleborough, Mass. William J. Luther, *Clerk*, Attleborough, Mass.

DIRECTORS.

Everett S. Capron, Attleborough, Mass. Albert W. Sturdy, Attleborough, Mass. Everett S. Horton, Attleborough, Mass. Clarence L. Watson, Attleborough, Mass. James E. Blake, Attleborough, Mass. Harold E. Sweet, Attleborough, Mass. William J. Luther, Attleborough, Mass.

ATTLEBOROUGH STEAM AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

John Joyce, *President*, Andover, Mass. Maurice J. Curran, *Vice-President*, Andover, Mass. Vincent Goldthwaite, *Treasurer*, Wellesley, Mass. Vincent Goldthwaite, *Clerk*, Wellesley, Mass.

DIRECTORS.

John Joyce, Andover, Mass. Maurice J. Curran, Andover, Mass. Vincent Goldthwaite, Wellesley, Mass. Frank J. Fahey, Andover, Mass. James R. Nicholson, Boston, Mass.

AYER ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. N. Burnell, Malden, Mass.

BARRE ACETYLENE GAS COMPANY.

PRINCIPAL OFFICERS.

Charles F. Atwood, *President*, Barre, Mass. George P. King, *Vice-President*, Barre, Mass. G. Warren Cox, *Treasurer*, Barre, Mass. G. Warren Cox, *Clerk*, Barre, Mass.

DIRECTORS.

Charles F. Atwood, Barre, Mass. George P. King, Barre, Mass. G. Warren Cox, Barre, Mass. T. Hanson White, Adm., Barre, Mass.

BERNARDSTON ACETYLENE LIGHT COMPANY.

PRINCIPAL OFFICERS.

R. J. Boynton, *President*, South Framingham, Mass. E. C. Eames, *Vice-President*, South Framingham, Mass. F. W. Jennings, *Treasurer*, South Framingham, Mass. E. C. Eames, *Clerk*, South Framingham, Mass.

DIRECTORS.

John W. Chapin, Bernardston, Mass. John E. Davis, Bernardston, Mass. R. J. Boynton, South Framingham, Mass. E. C. Eames, South Framingham, Mass. F. W. Jennings, South Framingham, Mass.

BEVERLY GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Sidney W. Winslow, *President*, Orleans, Mass. Andrew W. Rogers, *Treasurer*, Beverly, Mass. Andrew W. Rogers, *Clerk*, Beverly, Mass.

DIRECTORS.

Sidney W. Winslow, Orleans, Mass. Sidney W. Winslow, Jr., Beverly, Mass. Herbert F. Winslow, Beverly, Mass. Andrew W. Rogers, Beverly, Mass. Charles F. Prichard, Lynn, Mass. Charles R. Prichard, Beverly, Mass.

BLACKSTONE ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Frederick P. Royce, *President*, Dedham, Mass. Algernon S. Michener, *Vice-President*, Brookline, Mass. Henry B. Sawyer, *Treasurer*, Brookline, Mass. Chester M. Clark, *Clerk*, Boston, Mass.

DIRECTORS.

Clement R. Ford, Concord, Mass. Algernon S. Michener, Brookline, Mass. Frederick P. Royce, Dedham, Mass.

BLOCK PLANT ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Sanford E. Boyden, *President*, Boston, Mass. M. J. Manning, *Treasurer*, Boston, Mass. Chas. H. Adams, *Clerk*, Melrose, Mass.

DIRECTORS.

Sanford E. Boyden, Boston, Mass. M. J. Manning, Boston, Mass. Chas. H. Adams, Melrose, Mass.

BOSTON CONSOLIDATED GAS COMPANY.

PRINCIPAL OFFICERS.

James L. Richards, *President*, Newtonville, Mass. W. A. Wood, *First Vice-President*, Boston, Mass. E. N. Wrightington, *Second Vice-President*, Brookline, Mass. Robert Grant, *Treasurer*, Needham, Mass. Edward Page, *Clerk*, Newtonville, Mass.

DIRECTORS.

Charles F. Adams, 2nd., Boston, Mass. S. Reed Anthony, Boston, Mass. Walter C. Baylies, Boston, Mass. Samuel Carr, Boston, Mass. Neal Rantoul, Boston, Mass. James L. Richards, Newtonville, Mass. Joseph B. Russell, Boston, Mass. Charles G. Smith, Brookline, Mass. Frederic E. Snow, Boston, Mass. Chas. A. Stone, Newton, Mass. William S. Spaulding, Boston, Mass. C. Minot Weld, Readville, Mass. Robert Winsor, Weston, Mass. J. N. Spear, Roxbury, Mass.

BROCKTON GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Marcus Beebe, *President*, Boston, Mass. Charles F. Prichard, *Vice-President*, Lynn, Mass. Micajah P. Clough, *Treasurer*, Boston, Mass. Charles F. Prichard, *Clerk*, Lynn, Mass.

DIRECTORS.

Marcus Beebe, Boston, Mass. Michjah P. Clough, Boston, Mass. Charles F. Prichard, Lynn, Mass. Charles S. Purinton, Boston, Mass. John S. Bartlett, Boston, Mass. Benjamin¹N. Johnson, Boston, Mass.

BUZZARDS BAY ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Allen A. Brown, *President*, Boston, Mass. Arthur K. Brown, *Vice-President*, Boston, Mass. Eugene Carpenter, *Treasurer*, Newton, Mass. Eugene Carpenter, *Clerk*, Newton, Mass.

DIRECTORS.

Allen A. Brown, Boston, Mass. Arthur K. Brown, Boston, Mass. Eugene Carpenter, Newton, Mass.

CAMBRIDGE ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Josiah Q. Bennett, *President*, Cambridge, Mass. J. Henry Russell, *Vice-President*, Cambridge, Mass. Welles E. Holmes, *Treasurer*, Newton, Mass. Welles E. Holmes, *Clerk*, Newton, Mass.

DIRECTORS.

Josiah Q. Bennett, Cambridge, Mass. J. Henry Russell, Cambridge, Mass. John H. Corcoran, Cambridge, Mass. William Blodget, Chestnut Hill, Mass. George Close, Cambridge, Mass. Gustavus Goepper, Cambridge, Mass. Alfred Bowditch, Boston, Mass.

CAMBRIDGE GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

W. A. Bullard, *President*, Wayland, Mass. Albert M. Barnes, *Treasurer*, Cambridge, Mass. Albert M. Barnes, *Clerk*, Cambridge, Mass.

DIRECTORS.

W. A. Bullard, Wayland, Mass. Daniel G. Tyler, Lexington, Mass. Stanley B. Hildreth, Harvard, Mass. Henry Endicott, Cambridge, Mass. George A. Sawyer, Cambridge, Mass. Arthur C. Whitney, Lexington, Mass. Edward W. Hutchins, Boston, Mass.

CAPE LIGHT, HEAT AND POWER COMPANY.

PRINCIPAL OFFICERS.

Roy J. Boynton, *President*, South Framingham, Mass. Frank W. Jennings, *Treasurer*, South Framingham, Mass. John D. Adams, *Clerk*, Provincetown, Mass.

DIRECTORS.

Roy J. Boynton, South Framingham, Mass. Frank W. Jennings, South Framingham, Mass. John D. Adams, Provincetown, Mass. William C. Halstead, Providence, R. I.

CENTRAL MASSACHUSETTS ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

J. T. Harmer, *President*, Springfield, Mass. Henry C. Page, *Vice-President*, Worcester, Mass. Leverett Candee, *Treasurer*, Springfield, Mass. F. P. McIntyre, *Clerk*, Springfield, Mass.

DIRECTORS.

Leverett Candee, Springfield, Mass. J. T. Harmer, Springfield, Mass. F. P. McIntyre, Springfield, Mass. Henry C. Page, Worcester, Mass. Bentley W. Warren, Williamstown, Mass.

CHARLESTOWN GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

George N. Swallow, *President*, Boston, Mass. Frank J. Bartlett, *Vice-President*, Malden, Mass. Samuel J. Fowler, *Treasurer*, Cambridge, Mass. Samuel J. Fowler, *Clerk*, Cambridge, Mass.

DIRECTORS.

George N. Swallow, Boston, Mass. Charles F. Byam, Charlestown, Mass. Frank D. Brown, Lexington, Mass. James M. Hennewell, Boston, Mass. Frank J. Bartlett, Malden, Mass. Frank M. Sawtell, Malden, Mass.

CHESTER ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Clara M. Gardner, *President*, Chester, Mass. Frank E. Bidwell, *Vice-President*, Springfield, Mass. E. LeRoy Gardner, *Treasurer*, Chester, Mass. E. LeRoy Gardner, *Clerk*, Chester, Mass.

DIRECTORS.

Clara M. Gardner, Chester, Mass. E. LeRoy Gardner, Chester, Mass. Frank E. Bidwell, Springfield, Mass.

CHICOPEE GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Charles H. Tenney, *President*, Hartford, Conn. Albert B. Tenney, *First Vice-President*, Lexington, Mass. D. Edgar Manson, *Second Vice-President*, Brookline, Mass. Elihu A. Bradley, *Treasurer*, Boston, Mass. Horace P. Wood, *Clerk*, Brookline, Mass.

DIRECTORS.

Charles H. Tenney, Hartford, Conn. Albert B. Tenney, Lexington, Mass. D. Edgar Manson, Brookline, Mass. Horace P. Wood, Brookline, Mass. Edward M. Bradley, New Haven, Conn.

CITIZENS' GAS, ELECTRIC AND POWER COMPANY OF NANTUCKET.

PRINCIPAL OFFICERS.

John S. Granard, *President*, Nantucket, Mass. George C. Rule, *Treasurer*, Nantucket, Mass. George C. Rule, *Clerk*, Nantucket, Mass.

DIRECTORS.

John S. Granard, Nantucket, Mass. Franklin Folger, Nantucket, Mass. William F. Codd, Nantucket, Mass. R. E. Congdon, Nantucket, Mass. A. G. Brock, Nantucket, Mass. John C. Ring, Nantucket, Mass. Sidney Chase, Boston, Mass. George F. Mitchell, Somerville, Mass. Alanson S. Barney, Nantucket, Mass.

CITIZENS' GAS LIGHT COMPANY OF QUINCY.

PRINCIPAL OFFICERS.

James L. Richards, *President*, Newtonville, Mass. Robert Grant, *Vice-President*, Needham, Mass. H. C. French, *Treasurer*, West Newton, Mass. Edward Page, *Clerk*, Newtonville, Mass.

DIRECTORS.

James L. Richards, Newtonville, Mass. Robert Grant, Needham, Mass. H. C. French, West Newton, Mass. Russell A. Sears, Quincy, Mass. Clarence Burgin, Quincy, Mass. Thomas Hunt, Boston, Mass. Edward Page, Newtonville, Mass.

CLINTON GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. Frank Whittemore, Cambridge, Mass.

COLRAIN ELECTRIC LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

Joseph W. Stevens, *President*, Greenfield, Mass. George W. Lawrence, *Treasurer*, Greenfield, Mass. George N. Lawrence, *Clerk*, Greenfield, Mass.

DIRECTORS.

Joseph W. Stevens, Greenfield, Mass. George W. Lawrence, Greenfield, Mass. William Blake Allen, Greenfield, Mass. Charles C. Dyer, Greenfield, Mass. Haller D. Seavey, Greenfield, Mass.

DANVERS GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Sidney W. Winslow, *President*, Orleans, Mass. Andrew W. Rogers, *Vice-President*, Beverly, Mass. Andrew W. Rogers, *Treasurer*, Beverly, Mass. Andrew W. Rogers, *Clerk*, Beverly, Mass.

DIRECTORS.

Andrew W. Rogers, Beverly, Mass. Sidney W. Winslow, Orleans, Mass. Sidney W. Winslow, Jr., Beverly, Mass. Herbert F. Winslow, Beverly, Mass. Charles F. Prichard, Lynn, Mass. Charles R. Prichard, Beverly, Mass.

DEDHAM AND HYDE PARK GAS AND ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

John Joyce, *President*, Andover, Mass. Frank J. Fahey, *Vice-President*, Andover, Mass. Vincent Goldthwaite, *Treasurer*, Wellesley, Mass. Vincent Goldthwaite, *Clerk*, Wellesley, Mass.

DIRECTORS.

John Joyce, Andover, Mass. Maurice J. Curran, Andover, Mass. Frank J. Fahey, Andover, Mass. Vincent Goldthwaite, Wellesley, Mass. James R. Nicholson, Brookline, Mass.

DEERFIELD RIVER ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

John B. Packard, *President*, Conway, Mass. Fred A. Delabarre, *Treasurer*, Conway, Mass. Fred A. Delabarre, *Clerk*, Conway, Mass.

DIRECTORS.

John B. Packard, Conway, Mass. Arthur P. Delabarre, Conway, Mass. Fred A. Delabarre, Conway, Mass. Emery Brown, Conway, Mass. E. T. Cook, Conway, Mass.

EAST BOSTON GAS COMPANY.

PRINCIPAL OFFICERS.

James L. Richards, *President*, Newtonville, Mass. Robert Grant, *Vice-President*, Needham, Mass. J. Walter Andrews, *Treasurer*, Sharon, Mass. Edward Page, *Clerk*, Newtonville, Mass.

DIRECTORS.

James L. Richards, Newtonville, Mass. George W. Moses, East Boston, Mass. Thomas Hunt, Boston, Mass. Edward Page, Newtonville, Mass. Robert Grant, Needham, Mass. W. H. Allen, Newtonville, Mass. N. W. Gifford, East Boston, Mass.

EASTHAMPTON GAS COMPANY.

PRINCIPAL OFFICERS.

Philip Cabot, *President*, Boston, Mass. Henry S. Thompson, *Vice-President*, Boston, Mass. John N. Lyman, *Treasurer*, Easthampton, Mass. John N. Lyman, *Clerk*, Easthampton, Mass.

DIRECTORS.

Philip Cabot, Boston, Mass. Henry S. Thompson, Boston, Mass. David Barry, Boston, Mass. Charles W. Hazelton, Turners Falls, Mass. Joseph W. Stevens, Greenfield, Mass. Horace L. Clark, Easthampton, Mass. Charles H. Johnson, Easthampton, Mass. John N. Lyman, Easthampton, Mass.

EDISON ELECTRIC ILLUMINATING COMPANY OF BOSTON.

PRINCIPAL OFFICERS.

Charles L. Edgar, *President*, Brookline, Mass. Walter C. Baylies, *Vice-President*, Taunton, Mass. Thomas K. Cummins, *Treasurer*, Milton, Mass. J. Otis Wardwell, *Clerk*, Haverhill, Mass.

DIRECTORS.

Oliver Ames, North Easton, Mass. C. W. Amory, Boston, Mass. Charles F. Adams, 2nd., Concord, Mass. Walter C. Baylies, Taunton, Mass. Everett W. Burdett, Boston, Mass. I. Tucker Burr, Milton, Mass. T. J. Coolidge, Jr., Manchester, Mass. Thomas K. Cummins, Milton, Mass. Robert Saltonstall, Readville, Mass. George R. Jewett, Salem, Mass. C. Minot Weld, Milton, Mass. Charles L. Edgar, Brookline, Mass.

EDISON ELECTRIC ILLUMINATING COMPANY OF BROCKTON.

PRINCIPAL OFFICERS.

Frederick B. Howard, *President*, Brockton, Mass. A. Stuart Pratt, *Vice-President*, West Newton, Mass. Henry B. Sawyer, *Treasurer*, Brookline, Mass. Chester M. Clark, *Clerk*, Boston, Mass.

DIRECTORS.

Henry G. Bradlee, Brookline, Mass. Frederick B. Howard, Brockton, Mass. Frederick S. Pratt, West Newton, Mass. Chas. S. Purinton, Lynn, Mass. Russell Robb, Concord, Mass.

FALL RIVER ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Albert F. Dow, *President*, Fall River, Mass. Philip Cabot, *Vice-President*, Boston, Mass. Owen Durfee, *Treasurer*, Fall River, Mass. Owen Durfee, *Clerk*, Fall River, Mass.

DIRECTORS.

Edward L. Anthony, Fall River, Mass. George A. Ballard, Fall River, Mass. J. C. Borden, Fall River, Mass. Spencer Borden, Jr., Fall River, Mass. Philip Cabot, Boston, Mass. F. O. Dodge, Fall River, Mass. Albert F. Dow, Fall River, Mass. R. S. Goff, Fall River, Mass. Robert S. Hale, Boston, Mass. O. S. Hawes, Fall River, Mass. James E. Osborn, Fall River, Mass.

FALL RIVER GAS WORKS COMPANY.

PRINCIPAL OFFICERS.

Russell Robb, *President*, Concord, Mass. Frederick P. Royce, *Vice-President*, Dedham, Mass. Henry B. Sawyer, *Treasurer*, Brookline, Mass. Chester M. Clark, *Clerk*, Boston, Mass.

DIRECTORS.

Philip Dexter, Boston, Mass. Alfred D. Foster, Milton, Mass. George C. Lee, Westwood, Mass. Charles F. Prichard, Lynn, Mass. Russell Robb, Concord, Mass. Frederick P. Royce, Dedham, Mass. Philip Stockton, Manchester, Mass. Edward R. Utley, Newton, Mass. Edwin S. Webster, Chestnut Hill, Mass.

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Charles H. Tenney, *President*, Hartford, Conn. Albert B. Tenney, *First Vice-President*, Lexington, Mass. D. E. Manson, *Second Vice-President*, Brookline, Mass. Palmer York, *Treasurer*, Fitchburg, Mass. Horace P. Wood, *Clerk*, Brookline, Mass.

DIRECTORS.

Horace P. Wood, Brookline, Mass. H. I. Wallace, Fitchburg, Mass. C. E. Ware, Fitchburg, Mass. Philip Cabot, Boston, Mass. Barnon E. Helme, Kingston, R. I. Samuel A. York, New Haven, Conn. Edward M. Bradley, New Haven, Conn. Winthrop Coffin, Boston, Mass. Oakes Ames, Milton, Mass. H. C. Warren, New Haven, Conn. Charles H. Tenney, Hartford, Conn. Albert B. Tenney, Lexington, Mass. D. E. Manson, Brookline, Mass.

FOXBOROUGH ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Eugene P. Rowell, *President*, Plymouth, Mass. Charles R. Adams, *Treasurer*, Brookline, Mass. Edward C. Mason, *Clerk*, Bedford, Mass.

DIRECTORS.

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DIRECTORS.

A. C. Bent, Taunton, Mass. E. P. Rowell, Plymouth, Mass. Arthur Lord, Plymouth, Mass. Walter L. Boyden, Plymouth, Mass. Samuel Harlow, Plymouth, Mass.

PLYMOUTH GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Odiorne Swain, *President*, Malden, Mass. A. Parker Browne, *Treasurer*, Malden, Mass. A. Parker Browne, *Clerk*, Malden, Mass.

DIRECTORS.

Odiorne Swain, Malden, Mass. John C. Hatch, Hingham, Mass. Gorham Rogers, Boston, Mass. Charles T. Frost, Plymouth, Mass. A. Parker Browne, Malden, Mass.

QUINCY ELECTRIC LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

John Cashman, *President*, Quincy, Mass. Thomas Fenno, *Vice-President*, Quincy, Mass. Henry M. Faxon, *Treasurer*, Quincy, Mass. Alva Morrison, *Clerk*, Braintree, Mass.

DIRECTORS.

John Cashman, Quincy, Mass. Henry M. Faxon, Quincy, Mass. Thomas Fenno, Quincy, Mass. Alva Morrison, Braintree, Mass.

SALEM ELECTRIC LIGHTING COMPANY.

PRINCIPAL OFFICERS.

Charles H. Tenney, *President*, Hartford, Conn. Albert B. Tenney, *First Vice-President*, Lexington, Mass., and D. Edgar Manson, *Second Vice-President*, Brookline, Mass. Elihu A. Bradley, *Treasurer*, Boston, Mass. Horace P. Wood, *Clerk*, Brookline, Mass.

DIRECTORS.

Charles H. Tenney, Hartford, Conn. Albert B. Tenney, Lexington, Mass. D. Edgar Manson, Brookline, Mass. Horace P. Wood, Brookline, Mass. Herbert C. Warren, New Haven, Conn. Edward M. Bradley, New Haven, Conn. Samuel A. York, New Haven, Conn. Bernon E. Helme, Kingston, R. I. Philip Cabot, Boston, Mass. Winthrop Coffin, Brookline, Mass. Charles B. Price, Salem, Mass. Henry P. Benson, Salem, Mass. Oakes Ames, Milton, Mass.

SALEM GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Henry A. Hale, *President*, Salem, Mass. Benjamin W. Sluman, *Treasurer*, Salem, Mass. Benjamin W. Sluman, *Clerk*, Salem, Mass.

DIRECTORS.

Henry A. Hale, Salem, Mass. Charles F. Prichard, Lynn, Mass. Andrew W. Rogers, Beverly, Mass. John H. Smith, Salem, Mass. Sidney W. Winslow, Beverly, Mass.

SHELBURNE FALLS ELECTRIC LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

Joseph W. Stevens, *President*, Greenfield, Mass. George W. Lawrence, *Treasurer*, Greenfield, Mass. George W. Lawrence, *Clerk*, Greenfield, Mass.

DIRECTORS.

Joseph W. Stevens, Greenfield, Mass. George W. Lawrence, Greenfield, Mass. Charles C. Dyer, Greenfield, Mass. Charles S. Davis, Plymouth, Mass. Haller D. Seavey, Greenfield, Mass.

SOUTH HADLEY FALLS ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

C. Fayette Smith, *President*, Holyoke, Mass. Charles W. Dennett, *Treasurer*, South Hadley Falls, Mass. A. C. Paine, *Clerk*, Holyoke, Mass.

DIRECTORS.

C. Fayette Smith, Holyoke, Mass. C. W. Dennett, South Hadley Falls, Mass. A. C. Paine, Holyoke, Mass.

SOUTH HADLEY GAS COMPANY.

PRINCIPAL OFFICERS.

Charles A. Gridley, *President*, South Hadley, Mass. Alvin L. Wright, *Treasurer*, South Hadley, Mass. M. L. Welcker, *Clerk*, South Hadley Falls, Mass.

DIRECTORS.

Charles A. Gridley, South Hadley, Mass. Alvin L. Wright, South Hadley, Mass. M. L. Welcker, South Hadley Falls, Mass. N. E. Preston, South Hadley, Mass. Waldo A. Burnett, South Hadley, Mass.

SPENCER GAS COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. Frank Whittemore, Cambridge, Mass.

SPRINGFIELD GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Charles H. Tenney, *President*, Hartford, Conn. Albert B. Tenney, *First Vice-President*, Lexington, Mass. D. Edgar Manson, *Second Vice-President*, Brookline, Mass. Eugene Milliken, *Treasurer*, Longmeadow, Mass. Horace P. Wood, *Clerk*, Brookline, Mass.

DIRECTORS.

Charles H. Tenney, Hartford, Conn. D. Edgar Manson, Brookline, Mass. C. L. Goodhue, Springfield, Mass. William G. Wheat, Springfield, Mass. Frederick Harris, Springfield, Mass. Albert B. Tenney, Lexington, Mass. Horace P. Wood, Brookline, Mass. Herbert C. Warren, New Haven, Conn. Samuel A. York, New Haven, Conn. Edward M. Bradley, New Haven, Conn. Bernon E. Helme, Kingston, R. I.

STOCKBRIDGE LIGHTING COMPANY.

PRINCIPAL OFFICERS.

Daniel B. Fenn, *President*, Stockbridge, Mass. Charles E. Hull, *Treasurer*, Stockbridge, Mass. Edward T. Hull, *Clerk*, Stockbridge, Mass.

DIRECTORS.

Daniel B. Fenn, Stockbridge, Mass. Alexander Sedgwick, Stockbridge, Mass. Edward T. Hull, Stockbridge, Mass. Charles E. Hull, Stockbridge, Mass. Allen T. Treadway, Stockbridge, Mass.

SUBURBAN GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Charles H. Tenney, *President*, Hartford, Conn. Albert B. Tenney, *First Vice-President*, Lexington, Mass. D. Edgar Manson, *Second Vice-President*, Brookline, Mass. Elihu A. Bradley, *Treasurer*, Boston, Mass. Horace P. Wood, *Clerk*, Brookline, Mass.

DIRECTORS.

Charles H. Tenney, Hartford, Conn. Albert B. Tenney, Lexington, Mass. D. Edgar Manson, Brookline, Mass. Horace P. Wood, Brookline, Mass. Edward M. Bradley, New Haven, Conn. Herbert C. Warren, New Haven, Conn. Samuel A. York, New Haven, Conn. Oakes Ames, Milton, Mass. Bernon E. Helme, Kingston, R. I.

SUNDERLAND ELECTRIC LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

William P. Abbey, *President*, Sunderland, Mass. Ira A. Hoxie, *Vice-President*, Sunderland, Mass. Eliza P. Abbey, *Treasurer*, Sunderland, Mass. Eliza P. Abbey, *Clerk*, Sunderland, Mass.

DIRECTORS.

William P. Abbey, Sunderland, Mass. Ira A. Hoxie, Sunderland, Mass. Frederick L. Whitmore, Sunderland, Mass. George P. Smith, Sunderland, Mass. Eliza P. Abbey, Sunderland, Mass.

SUNDERLAND GAS COMPANY.

PRINCIPAL OFFICERS.

C. F. Clark, *President*, Sunderland, Mass. H. G. Sanderson, *Vice-President*, Sunderland, Mass. M. H. Williams, *Treasurer*, Sunderland, Mass. F. O. Williams, *Clerk*, Sunderland, Mass.

DIRECTORS.

C. F. Clark, Sunderland, Mass. H. G. Sanderson, Sunderland, Mass. F. O. Williams, Sunderland, Mass. M. H. Williams, Sunderland, Mass.

TAUNTON GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

William C. Davenport, *President*, Taunton, Mass. Walter T. Soper, *Treasurer*, Taunton, Mass. Walter T. Soper, *Clerk*, Taunton, Mass.

DIRECTORS.

William C. Davenport, Taunton, Mass. Frank L. Tinkham, Taunton, Mass. John E. Browne, Taunton, Mass. Walter T. Soper, Taunton, Mass.

UNION ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Eugene P. Rowell, *President*, Plymouth, Mass. Chauncey D. Parker, *Vice-President*, Boston, Mass. Charles R. Adams, *Treasurer*, Brookline, Mass. Edward C. Mason, *Clerk*, Bedford, Mass.

DIRECTORS.

Eugene P. Rowell, Plymouth, Mass. Chauncey D. Parker, Boston, Mass. Bowen Tufts, Arlington, Mass.

UNITED ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Robert W. Day, *President*, Springfield, Mass. William A. Lincoln, *Treasurer*, Springfield, Mass. William A. Lincoln, *Clerk*, Springfield, Mass.

DIRECTORS.

Charles A. Nichols, Springfield, Mass. Andrew B. Wallace, Springfield, Mass. Alfred Leeds, Springfield, Mass. George B. Holbrook, Springfield, Mass. Henry J. Beebe, Springfield, Mass. Robert W. Day, Springfield, Mass. William A. Lincoln, Springfield, Mass.

VINEYARD HAVEN GAS AND ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Allen A. Brown, *President*, Boston, Mass. Eugene Carpenter, *Treasurer*, Newton, Mass. Eugene Carpenter, *Clerk*, Newton, Mass.

DIRECTORS.

Allen A. Brown, Boston, Mass. Eugene Carpenter, Newton, Mass. Arthur K. Brown, Boston, Mass.

VINEYARD LIGHTING COMPANY.

PRINCIPAL OFFICERS.

Allen A. Brown, *President*, Boston, Mass. Arthur K. Brown, *Vice-President*, Boston, Mass. Eugene Carpenter, *Treasurer*, Newton, Mass. Eugene Carpenter, *Clerk*, Newton, Mass.

DIRECTORS.

Allen A. Brown, Boston, Mass. Arthur K. Brown, Boston, Mass. Eugene Carpenter, Newton, Mass.

WARE ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Henry K. Hyde, *President*, Ware, Mass. Andrew Bryson, *Vice-President*, Ware, Mass. George M. C. Barnard, *Treasurer*, Ware, Mass. George M. C. Barnard, *Clerk*, Ware, Mass.

DIRECTORS.

Henry K. Hyde, Ware, Mass. Andrew Bryson, Ware, Mass. E. H. Gilbert, Ware, Mass. Henry S. Thompson, Concord, Mass. Philip Cabot, Boston, Mass.

WEBSTER AND SOUTHBIDGE GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Nathaniel T. Hurlbut, *President*, Webster, Mass. J. W. Dobbie, *Vice-President*, Webster, Mass. Herbert S. Shaw, *Treasurer*, Webster, Mass. F. W. Johnson, *Clerk*, Webster, Mass.

DIRECTORS.

J. W. Dobbie, Webster, Mass. N. T. Hurlbut, Webster, Mass. F. W. Johnson, Webster, Mass. L. E. Pattison, Webster, Mass. Philip Pearl, Webster, Mass. J. H. Platt, Dudley, Mass. H. S. Shaw, Webster, Mass.

WESTBOROUGH GAS AND ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Josiah Q. Bennett, *President*, Cambridge, Mass. Elihu G. Loomis, *Vice-President*, Bedford, Mass. Paul B. Webber, *Treasurer*, Bedford, Mass. Edward C. Mason, *Clerk*, Bedford, Mass.

DIRECTORS.

Josiah Q. Bennett, Cambridge, Mass. Elihu G. Loomis, Bedford, Mass. Paul B. Webber, Bedford, Mass. Alonzo P. Weeks, Winchester, Mass. Bowen Tufts, Arlington, Mass.

WESTON ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

Percy Warren, *President*, Weston, Mass. Francis B. Sears, *Vice-President*, Weston, Mass. Horace S. Sears, *Treasurer*, Weston, Mass. Horace S. Sears, *Clerk*, Weston, Mass.

DIRECTORS.

Justin E. Gale, Weston, Mass. Francis B. Sears, Weston, Mass. Horace S. Sears, Weston, Mass. Percy Warren, Weston, Mass. Robert Winsor, Weston, Mass.

WEYMOUTH LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

Josiah Q. Bennett, *President*, Cambridge, Mass. Arthur H. Wellman, *Vice-President*, Topsfield, Mass. Charles R. Adams, *Treasurer*, Brookline, Mass. Edward C. Mason, *Clerk*, Bedford, Mass.

DIRECTORS.

Josiah Q. Bennett, Cambridge, Mass. Arthur H. Wellman, Topsfield, Mass. Vincent Goldthwaite, Wellesley, Mass. Bowen Tufts, Arlington, Mass. Chauncey D. Parker, Boston, Mass. Daniel M. Easton, Weymouth, Mass. Edward L. Bennett, Cambridge, Mass.

WILLIAMSTOWN GAS COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. N. Burnell, Malden, Mass.

WINCHENDON ELECTRIC LIGHT AND POWER COMPANY.

PRINCIPAL OFFICERS.

W. M. Whitney, *President*, Winchendon, Mass. F. W. Nourse, *Treasurer*, Winchendon, Mass. F. W. Nourse, *Clerk*, Winchendon, Mass.

DIRECTORS.

B. D. Whitney, Winchendon, Mass. W. M. Whitney, Winchendon, Mass. Ada M. Whitney, Winchendon, Mass.

WOBURN GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Frank H. Monks, *President*, Brookline, Mass. Richard J. Monks, *Treasurer*, Boston, Mass. Richard J. Monks, *Clerk*, Boston, Mass.

DIRECTORS.

Frank H. Monks, Brookline, Mass. Richard J. Monks, Boston, Mass. George H. Monks, Boston, Mass. Livingston Cushing, Weston, Mass. John W. Johnson, Woburn, Mass.

WORCESTER COUNTY GAS COMPANY.

PRINCIPAL OFFICERS.

Alfred Clarke, *President*, Walpole, N. H. Arthur E. Childs, *Vice-President*, Harrisville, N. H. Addis M. Whitney, *Treasurer*, Swampscott, Mass. George F. Howland, *Clerk*, Framingham, Mass.

DIRECTORS.

Alfred Clarke, Walpole, N. H. Arthur E. Childs, Harrisville, N. H. Addis M. Whitney, Swampscott, Mass. George F. Howland, Framingham, Mass. C. N. Burnell, Malden, Mass.

WORCESTER ELECTRIC LIGHT COMPANY.

PRINCIPAL OFFICERS.

George T. Dewey, *President*, Worcester, Mass. H. H. Fairbanks, *Treasurer*, Worcester, Mass. H. H. Fairbanks, *Clerk*, Worcester, Mass.

DIRECTORS.

George T. Dewey, Worcester, Mass. John C. MacInnes, Worcester, Mass. Frank L. Coes, Worcester, Mass. Edgar Reed, Worcester, Mass. M. J. Whittall, Worcester, Mass. R. H. Bullock, Worcester, Mass. Chas. E. Hildreth, Worcester, Mass. J. A. Denholm, Worcester, Mass.

WORCESTER GAS LIGHT COMPANY.

PRINCIPAL OFFICERS.

Charles D. Lamson, *President*, Worcester, Mass. James P. Hamilton, *Treasurer*, Worcester, Mass. James P. Hamilton, *Clerk*, Worcester, Mass.

DIRECTORS.

Charles D. Lamson, Worcester, Mass. A. G. Bullock, Worcester, Mass. Francis H. Dewey, Worcester, Mass. Albert Wood, Worcester, Mass. Samuel B. Woodward, Worcester, Mass. Thomas B. Eaton, Worcester, Mass.

WORCESTER SUBURBAN ELECTRIC COMPANY.

PRINCIPAL OFFICERS.

Thomas T. Robinson, *President*, Dedham, Mass. Henry S. Thompson, *Vice-President*, Concord, Mass. Philip Cabot, *Treasurer*, Boston, Mass. Lester E. Flint, *Clerk*, Somerville, Mass.

DIRECTORS.

W. A. L. Baseley, Uxbridge, Mass. Harold J. Cooledge, Boston, Mass. Charles S. Davis, Plymouth, Mass. Richard W. Hale, Dover, Mass. Thomas T. Robinson, Dedham, Mass. Henry S. Thompson, Concord, Mass. Philip Cabot, Boston, Mass. Henry T. Whitins, Northbridge, Mass. Lester E. Flint, Somerville, Mass.

APPENDIX B—COMPANIES.

BALANCE SHEETS, MANUFACTURING AND PROFIT AND LOSS • ACCOUNTS TO JUNE 30, 1911.

[From the returns made, as corrected by the Board.]

For localities supplied see pages 96 and 110.

THE ELECTRIC LIGHT AND POWER COMPANY OF ABINGTON AND ROCKLAND.

Assets.	
Real estate,	\$29,021 53
Steam plant,	30,077 37
Electric plant,	45,160 88
Electric lines,	108,361 21
Transformers,	19,375 79
Meters,	27,358 47
Arc lamps,	1,767 97
Due for electricity,	11,493 08
Fuel on hand,	1,276 64
Carbons on hand,	17 50
Oil and waste on hand,	30 80
Incandescent lamps on hand,	2,370 00
Globes on hand,	8 50
Other materials on hand,	11,951 23
Motors on hand,	10,849 12
Fixtures, tools, etc., on hand,	260 00
Automobiles,	1,589 19
Sundry accounts due the company,	2,981 04
Office furniture,	358 50
Cash on hand,	24,003 95
Insurance,	962 98
Investments,	2,293 60
Total assets, as per books of the company,	<u>\$331,569 35</u>
LIABILITIES.	
Capital stock,	\$189,000 00
Bonds issued,	45,000 00
Unpaid bills,	5,513 01
Deposits,	5 30
Premium on capital stock,	27,000 00
Interest accrued but not due,	312 50
Reserve fund,	2,990 40
Depreciation fund,	35,000 00
Amounts due from the company, not included above,	3,323 37
Total liabilities, as per books of the company,	<u>\$308,144 58</u>
Profit and loss balance,	23,424 77
	<u>\$331,569 35</u>

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$1,888 63	
For current bought,	25,858 81	
distribution,	24,224 92	
management,	16,318 10	
taxes,	4,788 69	
incidentals,	972 06	
	<hr/>	
	\$74,051 21	
Income from sale of light and power,		\$100,372 77
other sources,		17 50
Balance to profit and loss,	26,339 06	
	<hr/>	<hr/>
	\$100,390 27	\$100,390 27

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$26,395 06
Balance of manufacturing account,		26,339 06
Interest received,		127 06
Rents,		204 70
Interest paid,	\$3,120 71	
Dividends declared,	15,120 00	
Depreciation fund,	10,000 00	
Reserve fund,	1,294 54	
Other items,	105 86	
Balance June 30, 1911,	23,424 77	
	<hr/>	<hr/>
	\$53,065 88	\$53,065 88

ADAMS GAS LIGHT COMPANY.

ASSETS.

Real estate (gas),	\$9,679 46
Machinery and manufacturing appliances (gas),	3,986 40
Street mains (gas),	24,220 92
Services (gas),	15,645 28
Meters (gas),	10,238 48
Due for gas,	1,601 24
Other gas materials on hand,	400 00
Gas fixtures, tools, etc., on hand,	2,186 47
Electric lines,	30,004 44
Transformers,	6,632 36
Meters (electric),	6,160 40
Arc lamps,	3,606 53
Due for electricity,	2,335 37
Carbons on hand,	25 63
Incandescent lamps on hand,	680 72
Globes on hand,	34 14
Other electric materials on hand,	249 89
Motors on hand,	1,406 91
Horses, wagons, etc.,	132 50
Sundry accounts due the company,	3,884 22
Office furniture,	1,732 44
Cash on hand,	1,518 56
	<hr/>
Total assets, as per books of the company,	\$126,362 36

LIABILITIES.

Capital stock,	\$30,000 00
Notes payable,	21,000 00
Unpaid bills,	6,949 09
Deposits,	266 99
Unpaid dividends,	1,800 00
Premium on capital stock,	3,416 00
Interest accrued but not due,	427 50
Reserve fund,	14,901 29
Depreciation fund,	9,703 00
Amounts due from the company, not included above,	506 26
Total liabilities, as per books of the company,	\$118,970 13
Profit and loss balance,	7,392 23
	<hr/>
	\$126,362 36

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses (gas):		
At works,	\$50 70	
For gas bought,	10,760 10	
distribution,	2,000 03	
management,	4,312 71	
taxes,	620 84	
incidentals,	281 00	
	<hr/>	
	\$18,025 38	
Operating expenses (electric):		
At station,	\$49 05	
For current bought,	7,759 87	
distribution,	4,400 63	
management,	4,312 66	
taxes,	629 15	
incidentals,	342 95	
	<hr/>	
	17,494 31	
Income from sale of gas,		\$18,223 73
sale of electric light and power,		26,574 22
Balance to profit and loss,		
Gas,	198 35	
Electric,	9,079 91	
	<hr/>	
	\$44,797 95	\$44,797 95

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$30,425 52
Balance of gas manufacturing account,		198 35
Balance of electric manufacturing account,		9,079 91
Rents,		175 00
Other items of income,		1,272 96
Interest paid,	\$839 71	
Dividends declared,	7,200 00	
Depreciation fund,	9,703 00	
Reserve fund,	14,901 29	
Other items,	1,115 51	
Balance June 30, 1911,	7,392 23	
	<hr/>	
	\$41,151 74	\$41,151 74

ADAMS, U. S.

(Townsend.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$1,249 23	
For distribution,	138 61	
management,	72 00	
taxes,	52 45	
	<hr/>	
	\$1,512 29	
Income from sale of light and power,		\$2,506 60
other sources,		40 95
Balance to profit and loss,	1,035 26	
	<hr/>	<hr/>
	\$2,547 55	\$2,547 55

AMERICAN WOOLEN COMPANY.

(Maynard.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$5,420 00	
For distribution,	2,048 13	
management,	2,600 50	
taxes,	396 62	
incidentals,	649 63	
	<hr/>	
	\$11,114 88	
Income from sale of light and power,		\$15,146 25
Balance to profit and loss,	4,031 37	
	<hr/>	<hr/>
	\$15,146 25	\$15,146 25

AMESBURY ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$26,915 88
Steam plant,	47,803 08
Electric plant,	42,126 95
Electric lines,	25,143 78
Transformers,	6,521 18
Meters,	5,995 18
Arc lamps,	476 75
Due for electricity,	4,914 88
Fuel on hand,	3,763 00
Carbons on hand,	20 87
Oil and waste on hand,	29 07
Incandescent lamps on hand,	121 20
Globes on hand,	14 32
Other materials on hand,	980 25
Motors on hand,	937 03
Sundry accounts due the company,	1,172 88
Office furniture,	736 66
Cash on hand,	2,836 98
Notes receivable,	250 00
Insurance,	367 14
Total assets, as per books of the company,	<hr/> \$171,127 08

LIABILITIES.

Capital stock,	\$70,300 00
Bonds issued,	70,000 00
Notes payable,	10,000 00
Unpaid bills,	909 25
Interest accrued but not due,	291 67
Total liabilities, as per books of the company,	<u>\$151,500 92</u>
Profit and loss balance,	19,626 16
	<u>\$171,127 08</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$14,103 66	
For current bought,	914 97	
distribution,	4,173 20	
management,	2,228 57	
taxes,	1,141 56	
incidentals,	2,012 55	
	<u>\$24,574 21</u>	
Income from sale of light and power,		\$40,362 35
other sources,		1,111 25
Balance to profit and loss,	16,899 39	
	<u>\$41,473 60</u>	<u>\$41,473 60</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$16,214 08
Balance of manufacturing account,		16,899 39
Other items of income,		62 68
Interest paid,	\$3,942 25	
Dividends declared,	3,181 66	
Depreciation,	6,298 56	
Other items,	127 52	
Balance June 30, 1911,	19,626 16	
	<u>\$33,176 15</u>	<u>\$33,176 15</u>

AMSEBURY AND SALISBURY GAS COMPANY.

ASSETS.

Real estate,	\$6,725 16
Machinery and manufacturing appliances,	66,826 36
Street mains,	86,011 18
Meters,	10,359 05
Due for gas,	10,748 48
Gas coal on hand,	866 75
Coke on hand,	957 58
Enrichers on hand,	130 62
Purifying materials on hand,	150 00
Other materials on hand,	25 00
Stoves on hand,	281 12
Fixtures, tools, etc., on hand,	615 69
Sundry accounts due the company,	13,721 13
Office furniture,	315 23
Cash on hand,	3,532 55
Total assets, as per books of the company,	<u>\$201,265 90</u>

LIABILITIES.

Capital stock,	\$60,000 00
Bonds issued,	60,000 00
Notes payable,	31,800 00
Unpaid bills,	42,118 91
Deposits,	150 00
Interest accrued but not due,	625 00

Total liabilities, as per books of the company,	\$194,693 91
Profit and loss balance,	6,571 99

\$201,265 90

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At works,	\$11,576 55	
For distribution,	841 78	
management,	2,887 24	
taxes,	1,029 40	
incidentals,	105 36	
	<hr/>	
	\$16,440 33	
Income from sale of gas,		\$21,014 35
other sources,		971 95
Balance to profit and loss,	5,545 97	
	<hr/>	
	\$21,986 30	\$21,986 30

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$5,962 02
Balance of manufacturing account,		5,545 97
Interest paid,	\$4,490 60	
Other items,	445 40	
Balance June 30, 1911,	6,571 99	
	<hr/>	
	\$11,507 99	\$11,507 99

AMHERST GAS COMPANY.

ASSETS.

Real estate (gas),	\$5,051 00
Machinery and manufacturing appliances (gas),	23,284 63
Street mains (gas),	20,953 00
Services (gas),	787 64
Meters (gas),	1,350 00
Due for gas,	1,770 79
Coal on hand,	81 40
Enrichers on hand,	171 50
Other gas materials on hand,	2,068 35
Stoves on hand,	453 77
Gas fixtures on hand,	138 88
Real estate (electric),	11,603 28
Steam plant (electric),	36,715 00
Electric plant,	25,648 00
Electric lines,	49,770 00
Transformers,	7,742 00
Meters (electric),	9,216 00
Arc lamps,	1,600 00

Due for electricity,	\$10,271 54
Fuel on hand (electric),	1,530 00
Other electric materials on hand,	1,547 77
Sundry accounts due the company,	4,542 22
Office furniture,	697 35
Cash on hand,	4,963 73
Total assets, as per books of the company,	\$221,957 85

LIABILITIES.

Capital stock,	\$100,000 00
Bonds issued,	30,000 00
Notes payable,	67,919 87
Unpaid bills,	11,287 81

Total liabilities, as per books of the company,	\$209,207 68
Profit and loss balance,	12,750 17

\$221,957 85

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$3,669 10	
For distribution,	839 51	
management,	653 75	
taxes,	719 17	
incidentals,	349 00	
	\$6,230 53	
Operating expenses (electric):		
At station,	\$3,959 57	
For current bought,	5,913 70	
distribution,	6,087 47	
management,	2,183 50	
taxes,	1,078 76	
incidentals,	456 50	
	19,679 50	
Income from sale of gas,		\$3,217 70
sale of electric light and power,		39,720 34
Balance to profit and loss:		
Gas,		3,012 83
Electric,	20,040 84	
	\$45,950 87	\$45,950 87

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$12,157 50
Balance of gas manufacturing account,	\$3,012 83	
Balance of electric manufacturing account,		20,040 84
Rents,		80 00
Jobbing,		1,097 12
Interest paid,	4,304 48	
Dividends declared,	6,000 00	
Depreciation,	4,422 27	
Other items,	2,885 71	
Balance June 30, 1911,	12,750 17	
	\$33,375 46	\$33,375 46

ARLINGTON GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$26,134 00
Machinery and manufacturing appliances,	66,793 04
Street mains,	177,057 63
Services,	12,680 68
Meters,	24,357 80
Due for gas,	6,618 21
Gas coal on hand,	1,278 05
Tar on hand,	20 25
Enrichers on hand,	191 00
Other materials on hand,	348 87
Fixtures, tools, etc., on hand,	4,665 58
Horses, wagons, etc.,	4,323 67
Sundry accounts due the company,	10,473 92
Office furniture,	2,378 78
Cash on hand,	8,488 92
Total assets, as per books of the company,	<u>\$345,810 40</u>

LIABILITIES.

Capital stock,	\$100,000 00
Bonds issued,	100,000 00
Notes payable,	138,000 00
Unpaid bills,	1,211 97
Deposits,	1,593 06
Interest accrued but not due,	4,235 00
Amounts due from the company, not included above,	612 99
Total liabilities, as per books of the company,	<u>\$345,653 02</u>
Profit and loss balance,	157 38
	<u>\$345,810 40</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$20,007 90	
For distribution,	3,917 92	
management,	10,432 29	
taxes,	1,653 37	
incidentals,	1,117 61	
	<u>\$37,129 09</u>	
Income from sale of gas,		\$51,791 21
Balance to profit and loss,	14,662 12	
	<u>\$51,791 21</u>	<u>\$51,791 21</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$1,724 57	
Balance of manufacturing account,		\$14,662 12
Interest received,		84
Jobbing,		89 31
Other items of income,		1 00
Interest paid,	11,871 32	
Dividends declared,	1,000 00	
Balance June 30, 1911,	157 38	
	<u>\$14,753 27</u>	<u>\$14,753 27</u>

ASHBY.

(See W. O. Loveland.)

ATHOL GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate (gas),	\$11,213 68
Machinery and manufacturing appliances (gas),	25,816 90
Street mains (gas),	24,207 02
Services (gas),	1,346 58
Meters (gas),	3,589 01
Due for gas,	1,698 08
Gas coal on hand,	89 25
Enrichers on hand,	163 05
Other gas materials on hand,	1,541 20
Stoves on hand,	669 33
Gas fixtures, tools, etc., on hand,	801 73
Real estate (electric),	31,549 57
Water power plant,	42,514 20
Steam plant (electric),	31,735 19
Electric plant,	77,748 27
Electric lines,	82,748 52
Transformers,	14,065 97
Meters (electric),	15,388 13
Street lamps,	7,804 34
Due for electricity,	5,472 41
Fuel on hand (electric),	1,053 00
Carbons on hand,	30 91
Oil and waste on hand,	63 45
Incandescent lamps on hand,	1,036 31
Globes on hand,	13 68
Other electric materials on hand,	2,261 32
Motors on hand,	1,509 77
Electric fixtures, tools, etc., on hand,	804 14
Horses, wagons, etc.,	3,349 73
Sundry accounts due the company,	8,490 77
Office furniture,	1,637 15
Cash on hand,	2,429 80
Interest prepaid,	4,300 34
Insurance,	1,506 73
Investments,	3,027 43
Work in process,	207,960 22
Total assets, as per books of the company,	\$619,697 18

LIABILITIES.

Capital stock,	\$214,300 00
Bonds issued,	84,000 00
Notes payable,	250,800 00
Unpaid bills,	8,057 41
Interest accrued but not due,	4,630 06
Total liabilities, as per books of the company,	\$561,787 47
Profit and loss balance,	57,909 71
	\$619,697 18

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$7,003 40	
For distribution,	584 06	
management,	2,182 23	
taxes,	673 61	
incidentals,	349 62	
	<hr/>	
	\$10,792 92	
Operating expenses (electric):		
At station,	\$18,138 82	
For distribution,	2,793 14	
management,	4,139 69	
taxes,	2,713 18	
incidentals,	860 22	
	<hr/>	
	28,645 05	
Income from sale of gas,		\$14,937 29
sale of electric light and power,		62,225 13
Balance to profit and loss:		
Gas,	4,144 37	
Electric,	33,580 08	
	<hr/>	
	\$77,162 42	\$77,162 42

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$57,920 84
Balance of gas manufacturing account,		4,144 37
Balance of electric manufacturing account,		33,580 08
Rents,		714 77
Jobbing,		10,424 72
Interest paid,	\$20,145 85	
Dividends declared,	15,667 50	
Depreciation,	13,034 97	
Other items,	26 75	
Balance June 30, 1911,	57,909 71	
	<hr/>	
	\$106,784 78	\$106,784 78

ATTLEBORO GAS LIGHT COMPANY CORPORATION.

ASSETS.

Real estate,	\$41,961 98
Machinery and manufacturing appliances,	43,645 30
Street mains,	44,927 81
Meters,	19,290 15
Due for gas,	3,503 79
Gas coal on hand,	12,838 00
Coke on hand,	800 00
Tar on hand,	520 00
Enrichers on hand,	404 00
Purifying materials on hand,	520 00
Other materials on hand,	1,490 93
Stoves on hand,	327 50
Fixtures on hand,	149 04

Sundry accounts due the company,	\$874 60
Office furniture,	1,003 84
Cash on hand,	12,238 51
Investments,	2,700 00

Total assets, as per books of the company, \$187,195 45

LIABILITIES.

Capital stock,	\$58,000 00
Deposits,	6 09
Premium on capital stock,	14,500 00

Total liabilities, as per books of the company, \$72,506 09

Profit and loss balance, 114,689 36

\$187,195 45

MANUFACTURING ACCOUNT.

Operating expenses:	DR.	CR.
At works,	\$41,560 70	
For distribution,	3,650 71	
management,	8,128 54	
taxes,	3,003 12	
incidentals,	130 87	
	\$56,473 74	
Income from sale of gas,		\$63,647 76
residuals,		12,122 17
other sources,		33 12
Balance to profit and loss,	19,329 31	
	\$75,803 05	\$75,803 05

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$100,142 32
Balance of manufacturing account,		19,329 31
Interest received,		315 36
Rents,		1,139 10
Jobbing,		965 14
Dividends declared,	\$6,960 00	
Other items,	241 87	
Balance June 30, 1911,	114,689 36	
	\$121,891 23	\$121,891 23

ATTLEBOROUGH STEAM AND ELECTRIC COMPANY.

ASSETS.

Real estate,	\$48,119 32
Steam plant,	81,634 98
Electric plant,	33,556 41
Electric lines,	51,202 25
Transformers,	16,523 22
Meters,	13,900 58
Arc lamps,	1,276 62
Due for electricity,	13,244 36
Fuel on hand,	3,716 00

Carbons on hand,	\$23 46
Oil and waste on hand,	25 21
Incandescent lamps on hand,	1,321 33
Globes on hand,	25 32
Other materials on hand,	1,225 53
Motors on hand,	1,627 30
Fixtures, tools, etc., on hand,	1,232 31
Horses, wagons, automobiles,	1,815 02
Sundry accounts due the company,	1,096 10
Office furniture,	1,318 30
Cash on hand,	35,840 83
Sinking fund,	11,334 08
Reserved fund,	10,000 00
Investments,	1,500 00

Total assets, as per books of the company, \$331,558 53.

LIABILITIES.

Capital stock,	\$235,000 00.
Bonds issued,	30,000 00
Unpaid bills,	2,106 80
Deposits,	89 50.
Unpaid dividends,	7,050 00.
Interest accrued but not due,	125 00

Total liabilities, as per books of the company, \$274,371 30.
Profit and loss balance, 57,187 23.

\$331,558 53.

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$31,339 04	
For distribution,	4,840 94	
management,	14,597 04	
taxes,	5,364 40	
incidentals,	1,411 31	
	\$57,552 73	
Income from sale of light and power,		\$105,762 14
Other sources,		71 00.
Balance to profit and loss,	48,280 41	
	\$105,833 14	\$105,833 14

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$51,890 49.
Balance of manufacturing account,		48,280 41
Interest received,		1,718 07
Rents,		394 00.
Jobbing,		75 88.
Interest paid,	\$1,500 00	
Dividends declared,	28,200 00	
Depreciation,	15,220 52	
Other items,	251 10	
Balance June 30, 1911,	57,187 23	
	\$102,358 85	\$102,358 85.

ATWOOD, L. S.

(Chatham.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$375 00	
For distribution,	35 00	
taxes,	6 00	
	<hr/>	
	\$416 00	
Income from sale of gas,		\$562 25
Balance to profit and loss,	146 25	
	<hr/>	<hr/>
	\$562 25	\$562 25

AYER ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$2,915 56
Steam plant,	8,029 64
Electric plant,	8,787 14
Electric lines,	21,058 46
Transformers,	2,602 88
Meters,	5,782 72
Arc lamps,	588 57
Due for electricity,	1,111 91
Fuel on hand,	300 08
Carbons on hand,	52 90
Oil and waste on hand,	33 70
Incandescent lamps on hand,	304 41
Globes on hand,	27 02
Other materials on hand,	313 36
Motors on hand,	486 00
Sundry accounts due the company,	554 69
Office furniture,	190 48
Cash on hand,	1,732 02
Investments,	1,000 00
	<hr/>
Total assets, as per books of the company,	\$55,871 54

LIABILITIES.

Capital stock,	\$30,000 00
Bonds issued,	8,500 00
Notes payable,	11,000 00
Unpaid bills,	220 13
Deposits,	115 00
Unpaid dividends,	450 00
Interest accrued but not due,	441 67
Amounts due from the company, not included above,	79 68
	<hr/>
Total liabilities, as per books of the company,	\$50,806 48
Profit and loss balance,	5,065 06
	<hr/>

\$55,871 54

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$4,518 06	
For distribution,	1,275 67	
management,	1,986 41	
taxes,	118 95	
incidentals,	199 76	
	<hr/>	
	\$8,098 85	
Income from sale of light and power,		\$13,149 04
Balance to profit and loss,	5,050 19	
	<hr/>	<hr/>
	\$13,149 04	\$13,149 04

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$2,276 34
Balance of manufacturing account,		5,050 19
Interest received,		8 11
Rents,		96 00
Jobbing,		537 24
Interest paid,	\$1,088 41	
Dividends declared,	1,725 00	
Other items,	89 41	
Balance June 30, 1911,	5,065 06	
	<hr/>	<hr/>
	\$7,967 88	\$7,967 88

BALLOU, G. M.

(Shirley.)

MANUFACTURING ACCOUNTS.

Operating expenses:	Dr.	Cr.
At station,	\$1,718 00	
For distribution,	100 00	
taxes,	91 40	
incidentals,	55 00	
	<hr/>	
	\$1,964 40	
Income from sale of light and power,		\$3,440 55
Balance to profit and loss,	1,476 15	
	<hr/>	<hr/>
	\$3,440 55	\$3,440 55

BARNSTABLE.

(See COTUIT and HYANNIS.)

BARRE ACETYLENE GAS COMPANY.

ASSETS.

Real estate,	\$351 96
Machinery and manufacturing appliances,	335 17
Street mains,	1,756 99
Meters,	108 09
Due for gas,	272 96

Carbide on hand,	\$110 25
Stoves on hand,	6 00
Fixtures, tools, etc., on hand,	38 50
Sundry accounts due the company,	2 19
Cash on hand,	326 26

Total assets, as per books of the company, \$3,308 37

LIABILITIES.

Capital stock, \$2,400 00

Total liabilities, as per books of the company, \$2,400 00
 Profit and loss balance, 908 37

\$3,308 37

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works, \$1,540 19		
For distribution, 449 37		
management, 23 82		
taxes, 126 45		
	\$2,139 83	
Income from sale of gas,		\$2,134 18
Balance to profit and loss,		5 65
	\$2,139 83	\$2,139 83

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,668 06
Balance of manufacturing account, \$5 65		
Capital stock surrendered and cancelled,		4,800 00
Dividends declared, 400 00		
Depreciation, 5,104 40		
Other items, 49 64		
Balance June 30, 1911, 908 37		
	\$6,468 06	\$6,468 06

BERNARDSTON ACETYLENE LIGHT COMPANY.

(Unincorporated.)

ASSETS.

Real estate,	\$500 00
Machinery and manufacturing appliances,	1,000 00
Street mains,	1,207 15
Meters,	253 41
Due for gas,	56 28
Other materials on hand,	47 25
Fixtures, tools, etc., on hand,	91
Sundry accounts due the company,	18 75
Cash on hand,	56 55

Total assets, as per books of the company, \$3,140 30

LIABILITIES.

Capital stock,	\$2,300 00
Notes payable,	300 00
Interest due but not paid,	4 50
Total liabilities, as per books of the company,	\$2,604 50
Profit and loss balance,	535 80
	<hr/>
	\$3,140 30

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$348 45	
For distribution,	116 73	
management,	73 45	
taxes,	8 50	
	<hr/>	
	\$547 13	
Income from sale of gas,		\$514 84
other sources,		4 28
Balance to profit and loss,		28 01
	<hr/>	<hr/>
	\$547 13	\$547 13

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$581 81
Balance of manufacturing account,	\$28 01	
Interest paid,	18 00	
Balance June 30, 1911,	535 80	
	<hr/>	<hr/>
	\$581 81	\$581 81

BEVERLY GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate (gas),	\$102,453 34
Machinery and manufacturing appliances (gas),	37,269 60
Street mains and services (gas),	113,069 52
Meters (gas),	22,004 84
Due for gas,	5,533 67
Gas coal on hand,	6,568 44
Coke on hand,	98 00
Tar on hand,	1,575 00
Enrichers on hand,	176 00
Other gas materials on hand,	18 00
Stoves on hand,	1,393 21
Real estate (electric),	35,630 02
Steam plant (electric),	51,975 50
Electric plant,	48,030 94
Electric lines,	76,193 71
Transformers,	12,395 30
Meters (electric),	14,231 75
Arc lamps,	3,943 53
Due for electricity,	7,825 73
Fuel on hand (electric),	3,230 50
Motors on hand,	100 79
Automobiles,	2,420 28

Sundry accounts due the company,	\$3,114 95
Office furniture,	2,087 66
Cash on hand,	23,748 75
Notes receivable,	4,400 00
Investments,	500 00

Total assets, as per books of the company,	\$579,989 01
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LIABILITIES.

Capital stock,	\$285,900 00
Special stock,	11,800 00
Deposits,	1,480 00
Premium on capital stock,	95,130 00

Total liabilities as per books of the company,	\$394,310 00
Profit and loss balance,	185,679 01

\$579,989 01

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$42,336 95	
For distribution,	10,004 22	
management,	5,345 32	
taxes,	3,231 12	
incidentals,	975 44	
	<hr/>	
	\$61,893 05	
Operating expenses (electric):		
At station,	\$29,556 77	
For distribution,	14,620 86	
management,	6,434 31	
taxes,	6,462 24	
incidentals,	2,940 27	
	<hr/>	
	60,014 45	
Income from sale of gas,		\$70,404 15
residuals,		14,177 18
other sources (gas),		203 67
sale of electric light and power,		117,678 58
other sources (electric),		2,454 09
Balance to profit and loss:		
Gas,	22,891 95	
Electric,	60,118 22	
	<hr/>	
	\$204,917 67	\$204,917 67

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$159,751 56
Balance of gas manufacturing account,		22,891 95
Balance of electric manufacturing account,		60,118 22
Interest received,		1,676 34
Rents,		84 00
Interest paid,	\$974 56	
Dividends declared,	34,308 00	
Depreciation,	23,393 70	
Other items,	166 80	
Balance June 30, 1911,	185,679 01	

\$244,522 07 \$244,522 07

BLACKSTONE ELECTRIC LIGHT COMPANY.

ASSETS.

Machinery and manufacturing appliances (gas),	\$2,250 00
Street mains (gas),	6,324 88
Services (gas),	1,463 45
Meters (gas),	1,475 23
Due for gas,	348 69
Electric lines,	12,834 96
Transformers,	1,469 64
Meters (electric),	1,369 27
Arc lamps,	843 78
Due for electricity,	788 89
Horses, wagons, etc.,	24 65
Cash on hand,	2,712 84
Taxes prepaid,	102 69
Insurance,	12 64

Total assets, as per books of the company,	\$32,021 61
Profit and loss balance,	11,015 12

\$43,036 73

LIABILITIES.

Capital stock,	\$10,000 00
Notes payable,	27,585 45
Unpaid bills,	5,176 92
Deposits,	51 00
Amounts due from the company, not included above,	223 36

Total liabilities, as per books of the company,	\$43,036 73
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MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
For gas bought,	\$2,116 66	
distribution,	141 88	
management,	154 99	
taxes,	268 31	
incidentals,	30 00	
	<hr/>	
	\$2,711 84	
Operating expenses (electric):		
For current bought,	\$5,798 12	
distribution,	1,515 60	
management,	920 90	
taxes,	321 92	
incidentals,	139 45	
	<hr/>	
	8,695 99	
Income from sale of gas,		\$3,915 15
sale of electric light and power,		9,301 76
Balance to profit and loss:		
Gas,	1,203 31	
Electric,	605 77	

\$13,216 91 \$13,216 91

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$11,217 83	
Balance of gas manufacturing account,		\$1,203 81
Balance of electric manufacturing account,		605 77
Interest received,		24 65
Interest paid,	1,631 02	
Balance June 30, 1911,		11,015 12
	<hr/>	<hr/>
	\$12,848 85	\$12,848 85

BLOCK PLANT ELECTRIC LIGHT COMPANY.

(Boston.)

ASSETS.

Steam plant,	\$9,595 06
Electric plant,	7 894 61
Electric lines,	4,363 52
Meters,	2,541 04
Arc lamps,	1,890 77
Due for electricity,	3,724 81
Fuel on hand,	25 25
Carbons on hand,	13 26
Oil and waste on hand,	29 74
Incandescent lamps on hand,	220 29
Fixtures, tools, etc., on hand,	52 00
Sundry accounts due the company,	68 64
Cash on hand,	411 68
Investments,	13,616 89

Total assets, as per books of the company, \$44,447 06

LIABILITIES.

Capital stock,	\$9,500 00
Notes payable,	17,000 00
Unpaid bills,	563 34
Deposits,	159 25
Interest due but not paid,	425 00

Total liabilities, as per books of the company, \$27,647 59
 Profit and loss balance, 16,799 47

\$44,447 06

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$20,102 93	
For distribution,	1,174 27	
management,	613 28	
taxes,	30 08	
incidentals,	264 37	
	<hr/>	
	\$22,184 93	
Income from sale of light and power,		\$21,420 58
other sources,		4,125 44
Balance to profit and loss,	3,361 09	
	<hr/>	<hr/>
	\$25,546 02	\$25,546 02

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$13,668 11
Balance of manufacturing account,		3,361 09
Interest received,		608 56
Other items of income,		89 84
Interest paid,	\$850 00	
Other items,	78 13	
Balance June 30, 1913,	16,799 47	
	<hr/>	<hr/>
	\$17,727 60	\$17,727 60

BOSTON CONSOLIDATED GAS COMPANY.

ASSETS.

Real estate,	\$5,802,096 89
Machinery and manufacturing appliances,	6,466,498 47
Street mains,	9,884,762 81
Services,	1,414,316 02
Meters,	1,406,584 10
Due for gas,	161,164 48
Gas coal on hand,	59,293 14
Coke on hand,	137,837 61
Tar, etc., on hand,	19,787 15
Enrichers on hand,	87,532 94
Purifying materials on hand,	9,395 36
Other gas and electric materials on hand,	261,805 65
Stoves,	271,578 66
Horses, wagons, etc.,	50,090 68
Sundry accounts due the company,	42,673 48
Office furniture,	46,088 07
Cash on hand,	89,173 77
Notes and bonds receivable,	330 00
Interest prepaid,	2,550 00
Insurance,	4,458 68
Printing plant,	6,734 41

Total assets, as per books of the company, \$26,224,752 37

LIABILITIES.

Capital stock,	\$15,124,600 00
Notes payable,	1,698,629 65
Unpaid bills,	206,270 34
Deposits,	150,699 58
Reserved fund,	16,545 46
Premium on capital stock,	8,893,264 80
Amounts due from the company, not included above,	87,195 93

Total liabilities, as per books of the company, \$26,177,205 76
 Profit and loss balance, 47,546 61

\$26,224,752 37

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$771,411 16	
For gas bought,	688,199 86	
distribution,	417,426 40	
management,	320,931 14	
taxes,	390,000 00	
incidentals,	30,017 20	
	<hr/>	
	\$2,617,985 76	
Income from sale of gas,		\$3,930,832 21
residuals,		27,010 72
Balance to profit and loss:	1,339,857 17	
	<hr/>	<hr/>
	\$3,957,842 93	\$3,957,842 93

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$267,712 58
Balance of manufacturing account,		1,339,857 17
Interest received,		4,797 43
Rents,		12,990 76
Jobbing,		4,198 66
Interest paid,	\$70,649 85	
Dividends declared,	1,361,214 00	
Depreciation,	69,140 72	
Reserve fund,	50,000 00	
Other items,	31,005 42	
Balance June 30, 1911,	47,546 61	
	<hr/>	<hr/>
	\$1,629,556 60	\$1,629,556 60

BRIDGES (J. B.) AND COMPANY.

(South Deerfield.)

ASSETS.

Electric lines,	\$3,929 20
Transformers,	779 58
Arc lamps,	790 02
Incandescent lamps on hand,	7 65
Other materials on hand,	60 80
Fixtures, tools, etc., on hand,	65 25
Office furniture,	15 00
	<hr/>
Total assets, as per books of the company,	\$5,647 50

LIABILITIES.

Capital invested,	\$5,647 50
	<hr/>
Total liabilities, as per books of the company,	\$5,647 50

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For current bought,	\$1,849 90	
distribution,	386 35	
management,	50 00	
taxes,	30 37	
	<hr/>	
	\$2,316 62	

	Dr.	Cr.
Income from sale of light and power, . . .		\$3,928 50
other sources,		117 50
Balance to profit and loss,	\$1,729 38	
	<hr/>	<hr/>
	\$4,046 00	\$4,046 00

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,		\$1,729 38
Dividends declared,	\$1,729 38	
	<hr/>	<hr/>
	\$1,729 38	\$1,729 38

BROCKTON GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$61,044 40
Machinery and manufacturing appliances,	282,773 26
Street mains,	238,405 18
High candle power lamps,	39,814 27
Services,	56,986 65
Meters,	87,140 41
Due for gas,	25,443 10
Gas coal on hand,	1,371 96
Gas on hand,	101 15
Tar on hand,	552 10
Enrichers on hand,	2,025 44
Purifying materials on hand,	400 00
Other materials on hand,	6,921 64
Stoves on hand,	4,100 00
Fixtures, tools, etc., on hand,	9,908 53
Horses, wagons, etc.,	3,347 58
Sundry accounts due the company,	5,828 81
Office furniture,	1,394 91
Cash on hand,	33,359 44
Insurance,	617 54
Investments,	36,712 65

Total assets, as per books of the company, \$898,249 02

LIABILITIES.

Capital stock,	\$559,000 00
Bonds issued,	100,000 00
Notes payable,	167,712 99
Unpaid bills,	16,621 46
Deposits,	3,088 49
Unpaid dividends,	8,385 00
Interest accrued but not due,	2,083 33

Total liabilities, as per books of the company, \$856,891 27
 Profit and loss balance, 41,357 75

\$898,249 02

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$108,579 76	
For distribution,	40,260 19	
management,	14,189 95	
taxes,	11,374 52	
incidentals,	3,477 56	
	<hr/>	
	\$177,881 98	
Income from sale of gas,		\$234,120 21
residuals,		2,737 26
other sources,		49 08
Balance to profit and loss,	59,024 57	
	<hr/>	<hr/>
	\$236,906 55	\$236,906 55

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$41,199 82
Balance of manufacturing account,		59,024 57
Interest received,		272 23
Rents,		456 00
Jobbing,		861 25
Other items of income,		16 45
Interest paid,	\$12,549 84	
Dividends declared,	33,540 00	
Depreciation,	14,000 00	
Other items,	382 73	
Balance June 30, 1911,	41,357 75	
	<hr/>	<hr/>
	\$101,830 32	\$101,830 32

BUZZARD'S BAY ELECTRIC COMPANY.

(Falmouth.)

ASSETS.

Real estate,	\$2,348 97
Steam plant,	4,957 03
Electric plant,	3,284 44
Electric lines,	15,266 52
Transformers,	1,070 86
Due for electricity,	976 36
Oil and waste on hand,	30 27
Incandescent lamps on hand,	106 08
Fixtures, tools, etc., on hand,	20 93
Sundry accounts due the company,	10,908 50
Cash on hand,	910 34
	<hr/>
Total assets, as per books of the company,	\$39,880 30
Profit and loss balance,	1,975 71
	<hr/>
	\$41,856 01

LIABILITIES.	
Capital stock,	\$11,000 00
Notes payable,	4,092 83
Unpaid bills,	1,035 83
Deposits,	201 80
Interest accrued but not due,	71 62
Amounts due from the company, not included above,	25,453 93
Total liabilities, as per books of the company,	<u>\$41,856 01</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$4,238 38		
For distribution,	335 30		
management,	141 16		
taxes,	91 80		
		\$4,806 64	
Income from sale of light and power,			\$6,337 42
other sources,			8 61
Balance to profit and loss,		1,539 39	
		<u>\$6,346 03</u>	<u>\$6,346 03</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,	\$2,384 45		
Balance of manufacturing account,			\$1,539 39
Rents,			550 00
Interest paid,	1,680 65		
Balance June 30, 1911,			1,975 71
		<u>\$4,065 10</u>	<u>\$4,065 10</u>

CAMBRIDGE ELECTRIC LIGHT COMPANY.

ASSETS.	
Real estate,	\$210,527 04
Steam plant,	312,344 12
Electric plant,	119,755 09
Electric lines,	408,865 98
Transformers,	44,638 34
Meters,	43,888 85
Arc lamps,	15,362 20
Due for electricity,	43,486 73
Fuel on hand,	7,264 55
Carbons on hand,	9 77
Incandescent lamps on hand,	13,762 02
Globes on hand,	1 97
Other materials on hand,	18,173 75
Horses, wagons and automobiles,	5,145 65
Sundry accounts due the company,	3,488 47
Office furniture,	2,419 51
Cash on hand,	117,144 64
Notes receivable,	1,025 00
Total assets, as per books of the company,	<u>\$1,367,303 68</u>

LIABILITIES.		
Capital stock,		\$850,000 00
Unpaid bills,		26,237 76
Deposits,		2,631 95
Reserved fund,		90,000 00
Premium on capital stock,		270,000 00
Total liabilities, as per books of the company,		\$1,238,869 71
Profit and loss balance,		128,433 97
		<u>\$1,367,303 68</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$85,251 82		
For current bought,	217 98		
distribution,	61,687 91		
management,	21,124 25		
taxes,	35,583 42		
incidentals,	7,408 90		
	<u>\$211,274 28</u>		
Income from sale of light and power,			\$385,287 13
Balance to profit and loss,		174,012 85	
		<u>\$385,287 13</u>	<u>\$385,287 13</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$110,267 04
Balance of manufacturing account,			174,012 85
Interest received,			613 28
Rents,			2,826 93
Interest paid,	\$378 67		
Dividends declared,	82,500 00		
Depreciation,	30,000 00		
Reserve fund,	45,000 00		
Other items,	1,407 46		
Balance June 30, 1911,	128,433 97		
	<u>\$287,720 10</u>		<u>\$287,720 10</u>

CAMBRIDGE GAS LIGHT COMPANY.

ASSETS.		
Real estate,		\$374,379 05
Machinery and manufacturing appliances,		1,293,756 56
Street mains,		649,927 83
Meters,		100,000 00
Due for gas,		19,944 44
Gas coal on hand,		62,093 21
Coke on hand,		2,700 00
Enrichers on hand,		1,664 55
Purifying materials on hand,		2,030 72
Other materials on hand,		73,585 19
Stoves on hand,		5,676 46

Automobiles,	\$3,500 00
Sundry accounts due the company,	35,659 89
Cash on hand,	35,362 61
Investments,	27,000 00

Total assets, as per books of the company, \$2,687,280 51

LIABILITIES.

Capital stock,	\$1,200,000 00
Notes payable,	402,100 00
Unpaid bills,	6,122 51
Deposits,	20,659 99
Unpaid dividends,	5 00
Interest accrued but not due,	2,441 66
Reserved fund,	10,000 00
Premiums on capital stock,	475,965 50
Amounts due from the company, not included above,	10,964 84

Total liabilities, as per books of the company, \$2,128,259 50

Profit and loss balance, 559,021 01

\$2,687,280 51

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$295,446 35	
For distribution,	89,499 08	
management,	38,427 03	
taxes,	55,360 54	
incidentals,	10,900 02	
	<hr/>	
	\$489,633 02	
Income from sale of gas,		\$612,579 55
residuals,		68,188 24
other sources,		5 50
Balance to profit and loss,	191,140 27	
	<hr/>	
	\$680,773 29	\$680,773 29

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$543,532 16
Balance of manufacturing account,		191,140 27
Interest received,		1,014 73
Rents,		746 49
Jobbing,		1,677 79
Other items of income,		408 69
Interest paid,	\$18,647 48	
Dividends declared,	132,000 00	
Depreciation,	24,249 23	
Other items,	4,602 41	
Balance June 30, 1911,	559,021 01	
	<hr/>	
	\$738,520 13	\$738,520 13

CAPE LIGHT, HEAT AND POWER COMPANY.

(Provincetown.)

ASSETS.

Real estate,	\$9,233 65
Electric plant,	24,090 68
Electric lines,	10,321 55
Transformers,	1,230 71
Meters,	1,300 52
Arc lamps,	117 00
Electric pump,	2,400 00
Due for electricity,	785 84
Fuel on hand,	45 00
Oil and waste on hand,	40 25
Incandescent lamps on hand,	145 85
Fixtures, tools, etc., on hand,	148 50
Office furniture,	103 00
Cash on hand,	567 09
Total assets, as per books of the company,	\$50,529 64
Profit and loss balance,	990 90

\$51,520 54

LIABILITIES.

Capital stock,	\$35,000 00
Bonds issued,	14,000 00
Notes payable,	2,125 00
Unpaid bills,	395 54
Total liabilities, as per books of the company,	\$51,520 54

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$3,808 10	
For distribution,	1,777 83	
management,	1,435 50	
taxes,	810 59	
	<hr/>	
	\$7,832 02	
Income from sale of light and power,		\$8,473 23
other sources,		125 00
Balance to profit and loss,	766 21	
	<hr/>	
	\$8,598 23	\$8,598 23

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$1,081 83	
Balance of manufacturing account,		\$766 21
Other items of income,		300 00
Interest paid,	900 68	
Other items,	74 60	
Balance June 30, 1911,		990 90
	<hr/>	<hr/>
	\$2,057 11	\$2,057 11

CENTRAL MASSACHUSETTS ELECTRIC COMPANY.

Assets.	
Real estate,	\$108,801 49
Steam plant,	31,793 87
Water power plant,	22,144 55
Electric plant,	43,197 34
Electric lines,	107,301 90
Inside wiring,	10,099 80
Transformers,	13,316 72
Meters,	11,278 61
Arc lamps,	7,095 10
Franchise,	30,000 00
Due for electricity,	7,692 01
Fuel on hand,	5,287 46
Carbons on hand,	14 80
Oil and waste on hand,	168 62
Incandescent lamps on hand,	565 38
Globes on hand,	23 33
Other materials on hand,	4,548 58
Fixtures, tools, etc., on hand,	1,101 40
Horses, wagons, etc.,	235 00
Sundry accounts due the company,	2,204 28
Office furniture,	887 37
Cash on hand,	4,547 62
Sinking fund,	18,945 59
Insurance and taxes prepaid,	189 28
Investments,	2,000 00
Total assets, as per books of the company,	\$433,440 10

LIABILITIES.	
Capital stock,	\$150,000 00
Bonds issued,	150,000 00
Notes payable,	56,000 00
Unpaid bills,	4,016 62
Deposits,	25 00
Interest accrued but not due,	4,216 67
Amounts due from the company, not included above,	2,313 82
Total liabilities, as per books of the company,	\$366,572 11
Profit and loss balance,	66,867 99
	\$433,440 10

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$39,196 49		
For distribution,	7,094 77		
management,	3,976 34		
taxes,	3,440 69		
incidentals,	479 95		
		\$54,188 24	
Income from sale of light and power,			\$78,654 45
other sources,			48 00
Balance to profit and loss,		24,514 21	
		\$78,702 45	\$78,702 45

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$53,586 01
Balance of manufacturing account,		24,514 21
Interest received,		692 33
Rents,		49 50
Other items of income,		90 00
Interest paid,	\$11,883 34	
Other items,	180 72	
Balance June 30, 1911,	66,867 99	
	<hr/>	<hr/>
	\$78,932 05	\$78,932 05

CHARLEMONT ELECTRIC PLANT.

(See G. H. TURNER.)

CHARLESTOWN GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate (gas),	\$151,839 00
Machinery and manufacturing appliances (gas),	386,285 29
Street mains (gas),	240,777 46
Meters (gas),	52,111 67
Due for gas,	12,681 72
Gas coal on hand,	16,898 75
Coke on hand,	2,865 70
Tar on hand,	935 36
Enrichers on hand,	41 48
Other gas materials on hand,	5,095 57
Stoves on hand,	1,503 34
Real estate (electric),	1,000 00
Electric lines,	53,324 34
Transformers,	13,421 06
Meters (electric),	6,992 11
Arc lamps,	194 45
Due for electricity,	7,150 84
Other electric materials on hand,	587 76
Sundry accounts due the company,	7,116 67
Cash on hand,	19,354 13
Insurance prepaid,	642 50
	<hr/>
Total assets, as per books of the company,	\$980,819 20

LIABILITIES.

Capital stock,	\$800,000 00
Notes payable,	50,000 00
Unpaid bills,	7,408 08
Deposits,	12,797 85
Premium on capital stock,	91,901 12
Amounts due from the company, not included above,	3,115 37
	<hr/>
Total liabilities, as per books of the company,	\$765,222 42
Profit and loss balance,	215,596 78

MANUFACTURING ACCOUNT.

Operating expenses (gas):	DR.	CR.
At works,	\$146,953 49	
For gas bought,	547 71	
distribution,	22,640 96	
management,	12,648 46	
taxes,	21,426 01	
incidentals,	2,323 16	
	<hr/>	
	\$206,539 79	
Operating expenses (electric):		
At station,	\$2,733 32	
For current bought,	35,774 74	
distribution,	11,418 57	
management,	4,102 68	
taxes,	3,046 60	
incidentals,	291 42	
	<hr/>	
	57,367 33	
Income from sale of gas,		\$221,334 13
residuals,		56,507 19
sale of electric light and power,		75,387 68
other sources (electric),		7 04
Balance to profit and loss:		
Gas,	71,301 53	
Electric,	18,027 39	
	<hr/>	
	\$353,236 04	\$353,236 04

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$215,183 80
Balance of gas manufacturing account,		71,301 53
Balance of electric manufacturing account,		18,027 39
Interest received,		243 10
Interest paid,	\$3,178 89	
Dividends declared,	60,000 00	
Depreciation,	25,700 00	
Other items,	280 15	
Balance June 30, 1911,	215,596 78	
	<hr/>	
	\$304,755 82	\$304,755 82

CHESTER ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$1,335 05
Steam plant,	759 81
Electric plant,	1,636 00
Electric lines,	1,152 36
Water power,	2,538 88
Meters,	539 51
Due for electricity,	209 32
Fuel on hand,	11 00
Oil and waste on hand,	16 00
Incandescent lamps on hand,	90 00
Fixtures, tools, etc., on hand,	98 93
Office furniture,	78 60
Cash on hand,	434 09

Total assets, as per books of the company, \$8,899 55

LIABILITIES.

Capital stock,	\$5,000 00
Notes payable,	3,200 00
Unpaid bills,	337 05
Interest accrued but not due,	62 50
<hr/>	
Total liabilities, as per books of the company,	\$8,599 55
Profit and loss balance,	300 00
<hr/>	
	\$8,899 55

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$1,335 85	
For distribution,	434 81	
management,	175 99	
taxes,	47 25	
incidentals,	55 97	
	<hr/>	
	\$2,049 87	
Income from sale of light and power,		\$2,623 27
Balance to profit and loss,	573 40	
	<hr/>	<hr/>
	\$2,623 27	\$2,623 27

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$200 00
Balance of manufacturing account,		573 40
Interest paid,	\$181 40	
Dividends declared,	192 00	
Depreciation,	100 00	
Balance June 30, 1911,	800 00	
	<hr/>	<hr/>
	\$773 40	\$773 40

CHICOPEE GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$48,932 89
Machinery and manufacturing appliances,	60,588 38
Street mains,	141,659 31
Services,	14,614 80
Gas arcs,	4,856 92
Meters,	43,767 84
Due for gas,	1,127 75
Gas coal on hand,	130 08
Other materials on hand,	13,029 76
Fixtures, tools, etc., on hand,	3,204 00
Horses, wagons, etc.,	1,542 56
Sundry accounts due the company,	4,607 76
Office furniture,	3,059 64
Cash on hand,	11,275 81
Insurance interest and taxes prepaid,	3,393 69

Total assets, as per books of the company,

Digitized by Google \$355,791 19

LIABILITIES.		
Capital stock,		\$166,500 00
Bonds issued,		60,000 00
Notes payable,		80,000 00
Unpaid bills,		7,873 53
Deposits,		817 58
Interest accrued but not due,		1,098 13
Amounts due from the company, not included above,		1,114 95
Total liabilities, as per books of the company,		\$317,404 19
Profit and loss balance,		38,387 00
		<hr/> \$355,791 19

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At works,	\$3,242 12		
For gas bought,	26,449 97		
distribution,	8,798 68		
management,	7,019 30		
taxes,	4,841 19		
incidentals,	2,137 45		
	<hr/>	\$52,488 71	
Income from sale of gas,			\$64,049 95
other sources,			1,081 85
Balance to profit and loss,		12,643 09	
		<hr/> \$65,131 80	<hr/> \$65,131 80

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$38,116 42
Balance of manufacturing account,			12,643 09
Interest received,			50 19
Rents,			110 00
Jobbing,			302 84
Other items of income,			307 49
Interest paid,	\$6,287 22		
Dividends declared,	6,660 00		
Other items,	195 81		
Balance June 30, 1911,	38,387 00		
	<hr/>	\$51,530 03	<hr/> \$51,530 03

CITIZENS' GAS, ELECTRIC AND POWER COMPANY OF NANTUCKET.

ASSETS.		
Real estate (gas),		\$3,794 76
Machinery and manufacturing appliances (gas),		10,492 59
Street mains and services (gas),		4,863 77
Meters (gas),		1,643 03
Due for gas,		1,243 45
Gas coal on hand,		2,497 75
Coke on hand,		2 50
Tar on hand,		115 00

Purifying materials on hand,	\$8 25
Gas fixtures, tools, etc., on hand,	50 00
Real estate (electric),	3,451 16
Steam plant (electric),	15,080 45
Electric plant,	3,926 78
Electric lines,	6,315 17
Transformers,	1,336 79
Meters (electric),	1,357 90
Arc lamps,	1,535 13
Due for electricity,	1,308 20
Fuel on hand (electric),	1,147 50
Carbons on hand,	3 75
Oil and waste on hand,	22 75
Incandescent lamps on hand,	124 35
Globes on hand,	38 30
Other electric materials on hand,	505 12
Electric fixtures, tools, etc., on hand,	60 00
Sundry accounts due the company,	730 69
Office furniture,	104 52
Cash on hand,	1,405 92
Total assets, as per books of the company,	\$63,165 58

LIABILITIES.

Capital stock,	\$26,000 00
Bonds issued,	25,500 00
Notes payable,	8,638 75
Unpaid bills,	2,521 48
Total liabilities, as per books of the company,	\$62,660 23
Profit and loss balance,	505 35
	\$63,165 58

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$6,265 58	
For distribution,	419 88	
management,	1,232 32	
taxes,	148 46	
incidentals,	203 08	
	\$8,269 32	
Operating expenses (electric):		
At station,	\$6,313 17	
For distribution,	859 87	
management,	1,232 30	
taxes,	296 90	
incidentals,	381 15	
	9,083 39	
Income from sale of gas,		\$7,168 05
residuals,		322 35
sale of electric light and power,		10,322 03
Balance to profit and loss:		
Gas,		778 92
Electric,	1,238 64	
	\$18,591 35	\$18,591 35

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$985 63
Balance of gas manufacturing account,	\$778 92	
Balance of electric manufacturing account,		1,238 64
Jobbing,		484 94
Other items of income,		144 56
Interest paid,	1,564 14	
Other items,	5 36	
Balance June 30, 1911,	505 35	
	<hr/>	<hr/>
	\$2,853 77	\$2,853 77

CITIZENS' GAS LIGHT COMPANY OF QUINCY.

ASSETS.

Real estate,	\$16,780 26
Machinery and manufacturing appliances,	85,644 47
Street mains,	382,916 30
Services,	35,986 99
Gas aros,	1,333 93
Meters,	36,840 96
Due for gas,	6,946 98
Coal on hand,	15 49
Gas on hand,	197 10
Other materials on hand,	20,877 98
Stoves,	1,179 42
Horses, wagons, etc.,	3,902 03
Sundry accounts due the company,	7,121 31
Office furniture,	760 20
Cash on hand,	435 22
Insurance and pay roll suspense,	418 52
	<hr/>
Total assets, as per books of the company,	\$601,357 16
Profit and loss balance,	25,843 72
	<hr/>

\$626,700 88

LIABILITIES.

Capital stock,	\$383,000 00
Notes payable,	231,000 00
Unpaid bills,	11,216 79
Deposits,	437 00
Amounts due from the company, not included above,	1,047 09
	<hr/>

Total liabilities, as per books of the company, \$626,700 88

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$3,964 65	
For gas bought,	30,488 40	
distribution,	9,396 08	
management,	7,668 29	
taxes,	5,820 00	
incidentals,	334 48	
	<hr/>	

\$57,671 90

	Dr.	Cr.
Income from sale of gas,		\$87,343 72
residuals,		110 38
Balance to profit and loss,	\$29,782 20	
	<hr/>	<hr/>
	\$87,454 10	\$87,454 10

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$27,173 84	
Balance of manufacturing account,		\$29,782 20
Interest received,		417 04
Jobbing,		935 50
Interest paid,	9,695 80	
Dividends declared,	19,150 00	
Depreciation,	207 63	
Other items,	251 19	
Balance June 30, 1911,		25,343 72
	<hr/>	<hr/>
	\$56,478 46	\$56,478 46

CLINTON GAS LIGHT COMPANY.

Assets.

Real estate (gas),	\$15,464 18
Machinery and manufacturing appliances (gas),	62,758 56
Street mains (gas),	40,738 21
Services (gas),	11,622 07
Meters (gas),	8,343 36
Due for gas,	3,326 37
Gas coal on hand,	1,066 13
Enrichers on hand,	246 40
Purifying materials on hand,	13 80
Other gas materials on hand,	37 50
Gas fixtures, tools, etc., on hand,	3,341 56
Real estate (electric),	29,184 41
Steam plant (electric),	26,012 67
Electric plant,	20,723 85
Electric lines,	73,878 13
Transformers,	7,802 24
Meters (electric),	6,960 29
Arc lamps,	3,025 62
Due for electricity,	4,243 58
Fuel on hand (electric),	404 95
Carbons on hand,	32 67
Oil and waste on hand,	25 95
Incandescent lamps on hand,	1,002 50
Globes on hand,	30 64
Motors on hand,	21 60
Horses, wagons, etc.,	1,149 07
Sundry accounts due the company,	1,568 67
Office furniture,	935 69
Cash on hand,	3,412 22

Total assets, as per books of the company, \$327,372 89

LIABILITIES.

Capital stock,	\$123,000 00
Bonds issued,	110,000 00
Notes payable,	57,000 00
Unpaid bills,	1,501 58
Deposits,	1,302 92
Unpaid dividends,	1,537 50
Interest accrued but not due,	1,842 50
Reserved fund,	10,050 57
Depreciation fund,	9,835 04
Amounts due from the company, not included above,	1,063 75
<hr/>	
Total liabilities, as per books of the company,	\$316,933 86
Profit and loss balance,	10,439 03
<hr/>	
	\$327,372 89

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$13,136 85	
For distribution,	1,698 68	
management,	4,572 61	
taxes,	1,936 95	
incidentals,	786 97	
	<hr/>	
	\$22,132 06	
Operating expenses (electric):		
At station,	\$12,364 19	
For distribution,	3,299 68	
management,	4,483 92	
taxes,	1,958 87	
incidentals,	781 88	
	<hr/>	
	22,888 54	
Income from sale of gas,		\$29,651 72
sale of electric light and power,		41,662 06
Balance to profit and loss:		
Gas,	7,519 66	
Electric,	18,773 52	
	<hr/>	
	\$71,313 78	\$71,313 78

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$7,007 39
Balance of gas manufacturing account,		7,519 66
Balance of electric manufacturing account,		18,773 52
Interest received,		124 96
Jobbing,		615 96
Interest paid,	\$8,404 96	
Dividends declared,	6,150 00	
Depreciation fund,	7,500 00	
Other items,	1,547 50	
Balance June 30, 1911,	10,439 03	
<hr/>		
	\$34,041 49	\$34,041 49

COLRAIN ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.		
Electric plant,		\$1,150 00
Electric lines,		502 52
Transformers,		465 00
Meters,		623 35
Street lamps,		135 15
Due for electricity,		113 29
		<hr/>
Total assets, as per books of the company,		\$2,989 31
Profit and loss balance,		339 14
		<hr/>
		\$3,328 45
LIABILITIES.		
Capital stock,		\$2,500 00
Unpaid bills,		746 89
Amounts due from the company, not included above,		81 56
		<hr/>
Total liabilities, as per books of the company,		\$3,328 45

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$621 80		
For current bought,	545 76		
distribution,	278 95		
management,	18 80		
taxes,	90 36		
		<hr/>	
		\$1,555 67	
Income from sale of light and power,			\$1,358 48
Balance to profit and loss,			197 19
		<hr/>	<hr/>
		\$1,555 67	\$1,555 67

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,		\$146 95	
Balance of manufacturing account,		197 19	
Jobbing;			\$5 00
Balance June 30, 1911,			339 14
		<hr/>	<hr/>
		\$344 14	\$344 14

CONWAY.

(See DEERFIELD RIVER ELECTRIC LIGHT COMPANY.)

COTUIT ACETYLENE GAS PLANT.

(Nickerson & Dyer, Owners.)

ASSETS.	
Real estate,	\$677 86
Machinery and manufacturing appliances,	527 03
Street mains,	782 45
Services,	130 00
Meters,	109 25
Due for gas,	410 10
Carbide on hand,	68 25
Cash on hand,	3 00
Total assets, as per books of the company,	<u>\$2,707 94</u>
LIABILITIES.	
Capital invested,	\$2,226 59
Total liabilities, as per books of the company,	<u>\$2,226 59</u>
Profit and loss balance,	481 35
	<u>\$2,707 94</u>

MANUFACTURING ACCOUNT.	
Operating expenses:	Dr. Cr.
At works, \$674 67	
For distribution, 97 50	
management, 18 00	
taxes, 10 16	
	<u>\$800 33</u>
Income from sale of gas,	\$1,079 75
Balance to profit and loss, 279 42	
	<u>\$1,079 75</u>
	<u>\$1,079 75</u>

PROFIT AND LOSS ACCOUNT.	
	Dr. Cr.
Balance June 30, 1910,	\$201 93
Balance of manufacturing account,	279 42
Balance June 30, 1911, \$481 35	
	<u>\$481 35</u>
	<u>\$481 35</u>

DANVERS GAS LIGHT COMPANY.

ASSETS.	
Real estate,	\$2,975 00
Machinery and manufacturing appliances,	7,591 75
Street mains and services,	33,488 06
Meters,	5,273 34
Due for gas,	1,438 56
Stoves on hand,	203 78
Sundry accounts due the company,	233 36
Office furniture,	160 31
Cash on hand,	312 87
Total assets, as per books of the company,	<u>\$51,677 03</u>

LIABILITIES.		
Capital stock,		\$30,000 00
Notes payable,		4,400 00
Unpaid bills,		2,993 06
Deposits,		40 00
Total liabilities, as per books of the company,		\$37,433 06
Profit and loss balance,		14,243 97
		<u>\$51,677 03</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At works,	\$15 07		
For gas bought,	7,015 44		
distribution,	651 72		
management,	2,633 26		
taxes,	686 40		
incidentals,	25 24		
	<u> </u>	\$11,027 13	
Income from sale of gas,			\$13,335 78
other sources,			86 00
Balance to profit and loss,		2,394 65	
		<u>\$13,421 78</u>	<u>\$13,421 78</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$13,830 60
Balance of manufacturing account,			2,394 65
Interest received,			26
Other items of income,			4 66
Interest paid,	\$186 20		
Dividends declared,	1,800 00		
Balance June 30, 1911,	14,243 97		
	<u> </u>	\$16,230 17	<u>\$16,230 17</u>

DEDHAM AND HYDE PARK GAS AND ELECTRIC LIGHT COMPANY.

ASSETS.		
Real estate,		\$5,897 87
Machinery and manufacturing appliances,		30,152 90
Street mains,		163,377 32
Services,		9,800 18
Meters,		18,337 69
Due for gas,		5,599 64
Other materials on hand,		1,540 72
Fixtures, tools, etc., on hand,		2,290 10
Horses, wagons, etc.,		1,278 37
Sundry accounts due the company,		1,993 51
Office furniture,		1,888 05
Cash on hand,		9,647 85
Insurance and interest prepaid,		292 16
Investments,		1,500 00

Total assets, as per books of the company, \$253,596 36

LIABILITIES.		
Capital stock,		\$141,750 00
Bonds issued,		60,000 00
Notes payable,		7,000 00
Unpaid bills,		2,528 09
Deposits,		697 52
Interest accrued but not due,		625 00
Premium on capital stock,		4,350 00
Total liabilities, as per books of the company,		\$216,948 61
Profit and loss balance,		36,647 75
		<hr/> \$253,596 36

MANUFACTURING ACCOUNT.		
Operating expenses:	DR.	CR.
At work,	\$679 93	
For gas bought,	22,918 60	
distribution,	2,830 96	
management,	7,580 26	
taxes,	3,139 46	
incidentals,	188 67	
	<hr/>	
	\$37,337 88	
Income from sale of gas,		\$56,946 28
other sources,		511 23
Balance to profit and loss,	20,119 63	
	<hr/>	
	\$57,457 51	\$57,457 51

PROFIT AND LOSS ACCOUNT.		
	DR.	CR.
Balance June 30, 1910,		\$30,217 27
Balance of manufacturing account,		20,119 63
Interest received,		124 07
Jobbing,		686 33
Other items of income,		18 34
Interest paid,	\$3,007 30	
Dividends declared,	11,340 00	
Other items,	170 59	
Balance June 30, 1911,	36,647 75	
	<hr/>	
	\$51,165 64	\$51,165 64

DEERFIELD RIVER ELECTRIC LIGHT COMPANY.

(Conway.)

ASSETS.		
Electric lines,		\$4,651 28
Transformers,		805 11
Meters,		22 50
Arc lamps,		40 10
Due for electricity,		422 32
Sundry accounts due the company,		731 01
Cash on hand,		507 63
Total assets, as per books of the company,		<hr/> \$7,179 95

LIABILITIES.

Capital stock,	\$4,700 00
Amounts due from the company, not included above,	53 82
Total liabilities, as per books of the company,	<u>\$4,753 82</u>
Profit and loss balance,	2,426 13
	<u>\$7,179 95</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For current bought,	\$1,399 92	
distribution,	37 65	
management,	186 05	
taxes,	82 72	
	<u>\$1,686 34</u>	
Income from sale of light and power,		\$2,201 58
Balance to profit and loss,	515 24	
	<u>\$2,201 58</u>	<u>\$2,201 58</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$2,081 72
Balance of manufacturing account,		515 24
Other items,	\$170 83	
Balance June 30, 1911,	2,426 13	
	<u>\$2,596 96</u>	<u>\$2,596 96</u>

DOUGLAS ELECTRIC COMPANY.

MANUFACTURING ACCOUNT TO DECEMBER 31, 1910.

Operating expenses:	Dr.	Cr.
For current bought,	\$1,043 01	
distribution,	510 22	
management,	337 61	
taxes,	33 00	
incidentals,	22 24	
	<u>\$1,946 08</u>	
Income from sale of light and power,		\$2,573 83
Balance to profit and loss,	627 75	
	<u>\$2,573 83</u>	<u>\$2,573 83</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$3,811 35
Balance of manufacturing account,		627 75
Interest paid,	\$192 95	
Depreciation,	3,811 35	
Plant loss in consolidation,	431 03	
Other items,	3 77	
	<u>\$4,439 10</u>	<u>\$4,439 10</u>

EAST BOSTON GAS COMPANY.

ASSETS.

Real estate,	\$278,330 99
Machinery and manufacturing appliances,	244,407 29
Street mains,	185,360 95
Services,	32,841 85
Meters,	81,917 98
Due for gas,	21,562 78
Gas coal on hand,	1,390 25
Coke on hand,	2,095 19
Tar on hand,	372 61
Enrichers on hand,	311 48
Other materials on hand,	36,177 70
Stoves and appliances,	3,487 43
Horses, wagons, etc.,	3,157 58
Sundry accounts due the company,	5,169 54
Office furniture,	4,701 88
Cash on hand,	3,988 00
Insurance prepaid,	460 19
Total assets, as per books of the company,	<u>\$905,733 69</u>

LIABILITIES.

Capital stock,	\$575,000 00
Unpaid bills,	15,699 67
Deposits,	26,650 25
Premium on capital stock,	11,000 00
Reserved fund,	4,594 41
Amounts due from the company, not included above,	4,300 89
Total liabilities, as per books of the company,	<u>\$637,245 22</u>
Profit and loss balance,	268,488 47
	<u>\$905,733 69</u>

MANUFACTURING ACCOUNT.

Operating expenses:	DR.	CR.
At works,	\$60,991 74	
For gas bought,	84,059 50	
distribution,	35,895 68	
management,	37,024 27	
taxes,	22,920 00	
incidentals,	3,470 05	
	<u>\$244,361 24</u>	
Income from sale of gas,		\$292,252 58
residuals,		12,473 04
other sources,		1,425 95
Balance to profit and loss,	61,790 33	
	<u>\$306,151 57</u>	<u>\$306,151 57</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$268,655 44
Balance of manufacturing account,		61,790 33
Interest received,		1,080 51

	Dr.	Cr.
Rents,		\$288 84
Jobbing,		1,034 23
Other items of income,		23 99
Interest paid,	\$860 20	
Dividends declared,	57,500 00	
Depreciation,	2,578 89	
Other items,	3,445 78	
Balance June 30, 1911,	268,488 47	
	<hr/>	<hr/>
	\$332,873 34	\$332,873 34

EASTHAMPTON GAS COMPANY.

ASSETS.		
Real estate (gas),		\$11,512 27
Machinery and manufacturing appliances (gas),		29,453 94
Street mains and services (gas),		22,153 78
Meters (gas),		6,286 27
Due for gas,		2,241 76
Gas coal on hand,		230 62
Coke on hand,		330 00
Tar on hand,		352 50
Enrichers on hand,		243 07
Purifying materials on hand,		5 40
Other gas materials on hand,		935 68
Stoves on hand,		282 75
Gas fixtures, tools, etc., on hand,		1,063 64
Real estate (electric),		87,318 94
Steam plant (electric),		58,531 27
Electric plant,		38,176 07
Electric lines,		20,263 92
Transformers,		2,994 92
Meters (electric),		2,426 28
Spur track,		477 76
Due for electricity,		4,049 45
Fuel on hand (electric),		1,518 60
Carbons on hand,		18 09
Oil and waste on hand,		120 26
Other electric materials on hand,		4,147 18
Electric fixtures, tools, etc., on hand,		2,490 22
Horses, wagons, etc.,		850 00
Sundry accounts due the company,		5,621 85
Office furniture,		1,200 00
Cash on hand,		5,976 15
Notes receivable,		500 00
Insurance and interest prepaid,		1,023 52
		<hr/>
Total assets, as per books of the company,		\$312,796 16

LIABILITIES.		
Capital stock,		\$150,000 00
Notes payable,		129,000 00
Unpaid bills,		1,186 88
Deposits,		40 00
		<hr/>
Total liabilities, as per books of the company,		\$280,226 88
Profit and loss balance,		32,569 28
		<hr/>

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$11,547 65	
For distribution,	1,795 20	
management,	2,770 18	
taxes,	1,008 98	
incidentals,	384 09	
	<hr/>	
	\$17,506 10	
Operating expenses (electric):		
At station,	\$7,223 75	
For current bought,	14,746 64	
distribution,	1,963 19	
management,	2,185 78	
taxes,	393 95	
incidentals,	674 20	
	<hr/>	
	27,187 51	
Income from sale of gas,		\$20,650 17
residuals,		2,749 95
sale of electric light and power,		35,581 32
Balance to profit and loss:		
Gas,	5,894 02	
Electric,	8,393 81	
	<hr/>	
	\$58,981 44	\$58,981 44

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$25,419 29
Balance of gas manufacturing account,		5,894 02
Balance of electric manufacturing account,		8,393 81
Interest received,		25 86
Jobbing,		1,290 34
Interest paid,	\$1,927 43	
Dividends declared,	6,000 00	
Depreciation,	500 00	
Other items,	26 61	
Balance June 30, 1911,	32,569 28	
	<hr/>	
	\$41,023 32	\$41,023 32

EDISON ELECTRIC ILLUMINATING COMPANY OF BOSTON.

ASSETS.

Properties purchased,	\$1,948,993 45
Real estate,	5,839,112 56
Steam plant,	4,144,470 55
Electric plant,	4,713,504 19
Electric lines,	10,672,004 64
Transformers,	483,258 69
Meters,	985,041 17
Arc lamps,	388,612 10
Due for electricity,	394,735 83
Fuel on hand,	104,891 99
Incandescent lamps on hand,	38,409 69

Other materials on hand,	\$340,322 41
Motors on hand,	3,566 65
Horses, wagons, etc.,	162,083 20
Cash on hand,	369,396 28
Notes receivable,	3,226 69
Investments,	20,877 16

Total assets, as per books of the company, \$30,612,507 25

LIABILITIES.

Capital stock,	\$15,603,700 00
Bonds issued,	1,469,000 00
Notes payable,	2,602,000 00
Unpaid bills,	149,724 14
Deposits,	25,552 25
Unpaid dividends,	468,111 00
Interest accrued but not due,	35,757 68
Reserved fund,	163,415 26
Premium on capital stock,	9,951,130 99
Amounts due from the company, not included above,	41,119 54

Total liabilities, as per books of the company, \$30,509,510 86

Profit and loss balance, 102,996 39

\$30,612,507 25

MANUFACTURING ACCOUNT.

Operating expenses:	DR.	CR.
At station,	\$884,659 34	
For current bought,	77 50	
distribution,	636,456 46	
management,	575,763 51	
taxes,	608,595 63	
incidentals,	183,394 12	
	<hr/>	
	\$2,888,946 56	
Income from sale of light and power,		\$5,257,913 76
other sources,		9,815 93
Balance to profit and loss,	2,378,783 13	
	<hr/>	<hr/>
	\$5,267,729 69	\$5,267,729 69

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$98,913 05
Balance of manufacturing account,		2,378,783 13
Interest received,		5,666 49
Rents,		10,164 31
Jobbing,		2,344 90
Other items of income,		59,142 41
Interest paid,	\$184,982 90	
Dividends declared,	1,867,035 00	
Reserved fund,	400,000 00	
Balance June 30, 1911,	102,996 39	

\$2,555,014 29 \$2,555,014 29

EDISON ELECTRIC ILLUMINATING COMPANY OF BROCKTON.

ASSETS.	
Real estate (gas),	\$4,180 42
Machinery and manufacturing appliances (gas),	3,312 93
Street mains (gas),	6,809 17
Services (gas),	14 94
Meters (gas),	1,690 26
Due for gas,	122 46
Enrichers on hand,	92 68
Stoves on hand,	208 36
Real estate (electric),	278,829 47
Steam plant (electric),	289,243 07
Electric plant,	223,007 89
Electric lines,	457,379 45
Transformers,	59,394 65
Meters (electric),	52,448 41
Arc lamps,	30,894 70
Due for electricity,	23,090 62
Fuel on hand (electric),	14,949 15
Oil and waste on hand,	27 16
Other electric materials on hand,	53,518 74
Electric tools, etc., on hand,	3,542 22
Automobiles,	523 01
Sundry accounts due the company,	8,887 04
Office furniture,	1,642 69
Cash on hand,	45,847 87
Notes receivable,	1,632 49
Taxes, insurance and interest prepaid,	3,806 80
Investments,	12,996 30

Total assets, as per books of the company, \$1,577,892 95

LIABILITIES.	
Capital stock,	\$948,800 00
Bonds issued,	200,000 00
Bonds of Stoughton Gas and Electric Company,	18,000 00
Bonds of Bridgewater Electric Company,	15,000 00
Notes payable,	100,000 00
Unpaid bills,	19,972 35
Deposits,	362 50
Premium on capital stock,	59,520 00
Interest accrued but not due,	1,701 39
Replacement reserve,	60,156 89
Other reserve funds,	37,862 96
Amounts due from the company, not included above,	19,162 43

Total liabilities, as per books of the company, \$1,480,538 52

Profit and loss balance, 97,354 43

\$1,577,892 95

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$1,638 11	
For distribution,	409 66	
management,	272 94	
taxes,	245 14	
incidentals,	83 62	
	<hr/>	
	\$2,649 47	
Operating expenses (electric):		
At station,	\$83,723 24	
For distribution,	47,342 78	
management,	46,511 46	
taxes,	35,651 98	
incidentals,	4,412 06	
	<hr/>	
	217,641 52	
Income from sale of gas,		\$3,907 57
sale of electric light and power,		329,296 58
Balance to profit and loss:		
Gas,	1,258 10	
Electric,	111,655 06	
	<hr/>	<hr/>
	\$333,204 15	\$333,204 15

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$100,307 24
Balance of gas manufacturing account,		1,258 10
Balance of electric manufacturing account,		111,655 06
Interest received,		503 64
Rents,		51 73
Jobbing,		1,159 58
Interest paid,	\$15,295 17	
Dividends declared,	75,904 00	
Sinking funds,	5,824 82	
Reserve fund,	20,000 00	
Other items,	556 93	
Balance June 30, 1911,	97,354 43	
	<hr/>	<hr/>
	\$214,935 35	\$214,935 35

FALL RIVER ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$349,051 86
Steam plant,	196,047 25
Electric plant,	125,789 11
Electric lines,	639,110 60
Transformers,	35,198 77
Meters,	32,212 77
Are lamps,	29,382 07
Due for electricity,	18,096 89
Fuel on hand,	1,172 80
Carbons on hand,	517 60
Oil and waste on hand,	267 87

Incandescent lamps on hand,	\$2,731 16
Globes on hand,	157 41
Other materials on hand,	45,093 39
Motors on hand,	11,313 25
Fixtures, tools, etc., on hand,	4,172 12
Horses, wagons, etc.,	4,300 00
Sundry accounts due the company,	5,708 98
Office furniture,	5,080 58
Cash on hand,	26,672 05
Notes receivable,	21,765 88
Insurance and interest prepaid,	7,749 23

Total assets, as per books of the company, \$1,561,591 64

LIABILITIES.

Capital stock,	\$800,000 00
Notes payable,	400,000 00
Unpaid bills,	88,489 96
Deposits,	367 00
Unpaid dividends,	16,000 00
Premium on capital stock,	175,000 00
Amounts due from the company, not included above,	12,979 68

Total liabilities, as per books of the company, \$1,492,836 64

Profit and loss balance, 68,755 00

\$1,561,591 64

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$51,840 47	
For distribution,	71,462 04	
management,	33,359 80	
taxes,	25,078 14	
incidentals,	3,831 88	
	\$185,572 33	
Income from sale of light and power,		\$275,578 64
Balance to profit and loss,	90,006 31	
	\$275,578 64	\$275,578 64

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$76,613 02
Balance of manufacturing account,		90,006 31
Interest received,		1,968 26
Jobbing,		413 99
Interest paid,	\$17,496 58	
Dividends declared,	60,000 00	
Depreciation,	13,000 00	
Reserve fund,	9,750 00	
Balance June 30, 1911,	68,755 00	

\$169,001 58 \$169,001 58

FALL RIVER GAS WORKS COMPANY.

ASSETS.

Real estate,	\$296,429 31.
Machinery and manufacturing appliances,	383,870 34
Street mains,	417,096 59
Services,	47,262 86
Meters,	113,075 56
Due for gas,	27,030 93
Gas coal on hand,	5,190 86
Tar on hand,	5,527 82
Enrichers on hand,	2,786 85
Other materials on hand,	36,983 68
Stoves on hand,	4,698 44
Sundry accounts due the company,	15,458 24
Office furniture,	2,648 18
Cash on hand,	125,961 58
Insurance and taxes prepaid,	2,362 90

Total assets, as per books of the company, \$1,486,384 14

LIABILITIES.

Capital stock,	\$690,000 00
Notes payable,	200,000 00
Unpaid bills,	13,488 28
Deposits,	4,874 00
Interest accrued but not due,	1,019 43
Replacement reserve,	100,000 00
Premium on capital stock,	111,598 67
Amounts due from the company, not included above,	10,271 76

Total liabilities, as per books of the company, \$1,131,252 14
 Profit and loss balance, 355,132 00

\$1,486,384 14

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$147,866 75	
For distribution,	68,822 55	
management,	38,137 90	
taxes,	42,182 57	
incidentals,	3,655 08	
	<hr/>	
	\$300,664 85	
Income from sale of gas,		\$448,769 75
residuals,		4,300 25
other sources,		292 94
Balance to profit and loss,	152,698 09	
	<hr/>	<hr/>
	\$453,362 94	\$453,362 94

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$456,202 64
Balance of manufacturing account,		152,898 09
Interest received,		1,445 98
Rents,		1,325 19
Interest paid,	\$5,456 83	
Dividends declared,	186,300 00	
Reserve fund,	50,000 00	
Other items,	14,783 07	
Balance June 30, 1911,	355,132 00	
	<hr/>	<hr/>
	\$611,671 90	\$611,671 90

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate (gas),	\$45,907 06
Machinery and manufacturing appliances (gas),	112,838 85
Street mains (gas),	159,036 43
Services (gas),	21,216 25
Meters (gas),	56,320 58
Unfinished gas construction,	34,161 74
Due for gas,	1,327 60
Gas coal on hand,	9,815 36
Coke on hand,	908 04
Tar on hand,	376 73
Enrichers on hand,	1,231 57
Purifying materials on hand,	125 79
Other gas materials on hand,	18,498 20
Stoves on hand,	1,138 51
Gas arc lamps,	2,301 17
Gas fixtures, tools, etc., on hand,	1,870 64
Real estate (electric),	127,886 62
Steam plant (electric),	145,160 02
Electric plant,	99,983 61
Electric lines,	240,622 60
Transformers,	20,063 15
Meters (electric),	18,599 93
Arc lamps,	7,209 81
Unfinished electric construction,	13,864 62
Due for electricity,	6,220 49
Fuel on hand (electric),	5,787 61
Carbons on hand,	183 49
Oil and waste on hand,	205 42
Incandescent lamps on hand,	802 50
Globes on hand,	78 66
Other materials on hand,	54,938 99
Motors on hand,	1,875 78
Electric tools, etc., on hand,	1,885 13
Horses, wagons, etc.,	8,836 80
Sundry accounts due the company,	39,514 17
Office furniture,	8,019 56
Cash on hand,	26,202 25
	<hr/>
Total assets, as per books of the company,	\$1,295,015 73

LIABILITIES.

Capital stock,	\$566,150 00
Notes payable,	310,000 00
Unpaid bills,	25,605 20
Deposits,	3,271 20
Interest accrued but not due,	1,069 18
Premium on capital stock,	217,805 00
Amounts due from the company, not included above,	594 94
<hr/>	
Total liabilities, as per books of the company,	\$1,124,495 52
Profit and loss balance,	170,520 21
<hr/>	
	\$1,295,015 73

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$49,497 44	
For distribution,	12,245 32	
management	14,564 78	
taxes,	8,585 71	
incidentals,	3,104 00	
	<hr/>	
	\$87,997 25	
Operating expenses (electric):		
At station,	\$39,683 09	
For current bought,	8,434 00	
distribution,	16,766 30	
management,	18,651 52	
taxes,	12,253 94	
incidentals,	5,934 25	
	<hr/>	
	101,723 10	
Income from sale of gas,		\$108,539 01
residuals,		7,013 77
other sources (gas),		516 75
sale of electric light and power,		139,132 78
other sources (electric),		5,886 53
Balance to profit and loss:		
Gas,	28,072 28	
Electric,	43,296 21	
	<hr/>	
	\$261,088 84	\$261,088 84

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$162,148 26
Balance of gas manufacturing account,		28,072 28
Balance of electric manufacturing account,		43,296 21
Interest received,		204 99
Other items of income,		21,264 95
Interest paid,	\$11,006 23	
Dividends declared,	56,233 75	
Depreciation,	888 29	
Other items,	16,338 21	
Balance June 30, 1911,	170,520 21	
	<hr/>	
	\$254,986 69	\$254,986 69

FOXBORO ELECTRIC COMPANY.

ASSETS.	
Real estate,	\$1,448 76
Electric plant,	2,551 63
Electric lines,	19,360 51
Transformers,	2,522 27
Meters,	2,900 92
Due for electricity,	2,491 47
Fuel on hand,	414 09
Incandescent lamps on hand,	350 00
Other materials on hand,	2,350 00
Fixtures, tools, etc., on hand,	386 80
Sundry accounts due the company,	100 02
Office furniture,	89 57
Cash on hand,	225 08

Total assets, as per books of the company, \$35,191 12

LIABILITIES.	
Capital stock,	\$16,500 00
Notes payable,	6,066 28
Unpaid bills,	12,483 72
Amounts due from the company, not included above,	141 12

Total liabilities, as per books of the company, \$35,191 12

MANUFACTURING ACCOUNT.		DR.	CR.
Operating expenses:			
At station,	\$11,754 61		
For current bought,	583 01		
distribution,	3,326 03		
management,	2,563 47		
taxes,	564 48		
incidentals,	896 78		
		\$19,688 38	
Income from sale of light and power,			\$13,687 76
other sources,			2,502 53
Balance to profit and loss,			3,498 09
		\$19,688 38	\$19,688 38

PROFIT AND LOSS ACCOUNT.		DR.	CR.
Balance June 30, 1910,			\$3,504 64
Balance manufacturing account,	\$3,498 09		
Depreciation account transferred,			7,000 00
Other items of income,			3,144 40
Interest paid,	453 31		
Depreciation,	9,530 54		
Other items,	167 10		
	\$13,649 04	\$13,649 04	

FRAMINGHAM GAS, FUEL AND POWER COMPANY.

ASSETS.

Real estate,	\$35,070 78
Machinery and manufacturing appliances,	52,380 79
Street mains,	50,057 55
Services,	4,765 87
Meters,	10,951 63
Due for gas,	3,704 22
Gas coal on hand,	790 50
Coke on hand,	1,575 00
Tar on hand,	394 25
Enrichers on hand,	55 80
Purifying materials on hand,	100 00
Other materials on hand,	2,197 12
Fixtures, tools, etc., on hand,	3,851 74
Patent rights,	15,000 00
Horses, wagons, etc.,	1,007 93
Sundry accounts due the company,	3,196 93
Office furniture,	1,740 15
Cash on hand,	127 26
Insurance fund,	79 50

Total assets, as per books of the company,	\$187,047 02
Profit and loss balance,	9,052 14

 \$196,099 16

LIABILITIES.

Capital stock,	\$75,000 00
Bonds issued,	55,000 00
Notes payable,	60,000 00
Unpaid bills,	5,541 88
Interest accrued but not due,	477 78
Insurance fund,	79 50

Total liabilities, as per books of the company,	\$196,099 16
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MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$19,231 06	
For distribution,	4,753 31	
management,	3,854 53	
taxes,	753 50	
incidentals,	476 65	
	<hr/>	
	\$29,069 05	
Income from sale of gas,		\$36,035 10
residuals,		4,290 35
other sources,		297 55
Balance to profit and loss,	11,553 95	
	<hr/>	<hr/>
	\$40,623 00	\$40,623 00

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$14,416 78	
Balance of manufacturing account,		\$11,553 95
Interest received,		17 18
Interest paid,	5,731 03	
Other items,	475 46	
Balance June 30, 1911,		9,052 14
	<hr/>	<hr/>
	\$20,623 27	\$20,623 27

FRANKLIN.

(See UNION ELECTRIC LIGHT COMPANY.)

FRANKLIN ELECTRIC LIGHT COMPANY.

(Turners Falls.)

ASSETS.

Electric lines,	\$20,600 00
Transformers,	1,350 00
Meters,	2,400 00
Arc lamps,	400 00
Due for electricity,	383 95
Carbons on hand,	8 25
Incandescent lamps on hand,	390 86
Other materials on hand,	447 85
Motors on hand,	75 00
Sundry accounts due the company,	410 79
Cash on hand,	780 36
	<hr/>
Total assets, as per books of the company,	\$27,247 06

LIABILITIES.

Capital stock,	\$20,000 00
Notes payable,	4,000 00
Unpaid dividends,	1,200 00
	<hr/>
Total liabilities, as per books of the company,	\$25,200 00
Profit and loss balance,	2,047 06
	<hr/>
	\$27,247 06

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$294 00	
For current bought,	5,327 88	
distribution,	3,810 55	
management,	1,530 05	
taxes,	422 30	
incidentals,	488 29	
	<hr/>	
	\$11,873 07	
Income from sale of light and power,		\$15,742 19
other sources,		12 39
Balance to profit and loss,	3,881 51	
	<hr/>	<hr/>
	\$15,754 58	\$15,754 58

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,409 88
Balance of manufacturing account,		3,881 51
Jobbing,		582 53
Interest paid,	\$225 00	
Dividends declared,	2,000 00	
Depreciation,	1,545 32	
Other items,	56 54	
Balance June 30, 1911,	2,047 06	
	<hr/>	<hr/>
	\$5,873 92	\$5,873 92

GARDNER ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$23,438 10
Steam plant,	57,795 00
Electric plant,	23,883 48
Electric lines,	50,902 96
Transformers,	12,164 18
Meters,	19,220 40
Due for electricity,	4,809 51
Fuel on hand,	135 30
Carbons on hand,	27 26
Oil and waste on hand,	47 07
Incandescent lamps on hand,	971 89
Globes on hand,	136 45
Other materials on hand,	1,957 59
Fixtures, tools, etc., on hand,	2,399 04
Sundry accounts due the company,	883 64
Office furniture,	1,333 27
Cash on hand,	7,134 31
Notes receivable,	20,000 00
Insurance prepaid,	422 66
Investments,	150 00

Total assets, as per books of the company, \$227,812 11

LIABILITIES.

Capital stock,	\$170,000 00
Notes payable,	20,000 00
Unpaid bills,	10,359 89
Deposits,	9 60
Unpaid dividends,	4,607 00
Premium on capital stock,	10,000 00
Depreciation fund,	5,036 38
Amounts due from the company, not included above,	332 53

Total liabilities, as per books of the company, \$220,345 40

Profit and loss balance, 7,466 71

\$227,812 11

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$7,581 63	
For current bought,	28,151 86	
distribution,	6,354 75	
management,	6,197 36	
taxes,	1,800 00	
incidentals,	2,001 02	
	<hr/>	
	\$52,086 62	
Income from sale of light and power,		\$64,135 72
other sources,		302 86
Balance to profit and loss,	12,351 96	
	<hr/>	<hr/>
	\$64,438 58	\$64,438 58

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$17,064 50
Balance of manufacturing account,		12,351 96
Interest received,		377 40
Rents,		120 00
Jobbing,		670 17
Interest paid,	\$3,912 53	
Dividends declared,	7,207 00	
Depreciation fund,	2,400 00	
Other items,	9,597 79	
Balance June 30, 1911,	7,466 71	
	<hr/>	<hr/>
	\$30,584 03	\$30,584 03

GARDNER GAS, FUEL AND LIGHT COMPANY.

ASSETS.

Real estate,	\$7,878 47
Machinery and manufacturing appliances,	24,887 56
Street mains,	52,286 69
Services,	4,925 42
Meters,	6,421 72
Due for gas,	2,047 75
Fixtures, tools, etc., on hand,	3,893 86
Cash on hand,	14 45
Investments,	2,132 58
	<hr/>
Total assets, as per books of the company,	\$104,488 50

LIABILITIES.

Capital stock,	\$26,200 00
Bonds issued,	15,500 00
Notes payable,	41,350 00
Unpaid bills,	2,356 78
Interest accrued but not due,	528 28
	<hr/>
Total liabilities, as per books of the company,	\$85,935 06
Profit and loss balance,	18,553 44
	<hr/>
	\$104,488 50

MANUFACTURING ACCOUNT.

Operating expenses:		Dr.	Cr.
At works,	\$7,143 60		
For distribution,	2,215 46		
management,	2,586 11		
taxes,	568 84		
incidentals,	700 00		
	<hr/>	\$13,214 01	
Income from sale of gas,			\$19,438 84
Balance to profit and loss,		6,224 83	
		<hr/>	<hr/>
		\$19,438 84	\$19,438 84

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$15,076 96
Balance of manufacturing account,		6,224 83
Interest received,		82 02
Interest paid,	\$2,830 37	
Balance June 30, 1911,	18,553 44	
	<hr/>	<hr/>
	\$21,383 81	\$21,383 81

GEORGETOWN GAS COMPANY.

ASSETS.

Real estate,	\$1,150 00
Machinery and manufacturing appliances,	1,000 00
Street mains,	5,901 52
Meters,	326 23
Due for gas,	86 16
Other materials on hand,	18 13
Stoves on hand,	18 50
Cash on hand,	27 85
	<hr/>
Total assets, as per books of the company,	\$8,528 39

LIABILITIES.

Capital stock,	\$7,500 00
	<hr/>
Total liabilities, as per books of the company,	\$7,500 00
Profit and loss balance,	1,028 39
	<hr/>
	\$8,528 39

MANUFACTURING ACCOUNT.

Operating expenses:		Dr.	Cr.
At works,	\$679 95		
For distribution,	39 70		
taxes,	108 93		
	<hr/>	\$828 58	
Income from sale of gas,			\$949 20
Balance to profit and loss,		120 62	
		<hr/>	<hr/>
		\$949 20	\$949 20

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$737 16
Balance of manufacturing account,		120 62
Other items of income,		570 61
Interest paid,	\$15 84	
Other items,	384 16	
Balance June 30, 1911.	1,028 39	
	<hr/>	<hr/>
	\$1,428 39	\$1,428 39

GLOUCESTER ELECTRIC COMPANY.

ASSETS.

Real estate,	\$68,897 19
Steam plant,	65,296 58
Electric plant,	59,757 67
Electric lines,	127,421 56
Transformers,	21,012 85
Meters,	27,276 56
Arc lamps,	2,822 14
Due for electricity,	9,004 17
Fuel on hand,	3,222 95
Carbons on hand,	33 76
Oil and waste on hand,	51 25
Incandescent lamps on hand,	960 94
Globes on hand,	16 00
Other materials on hand,	2,949 87
Motors on hand,	292 30
Fixtures, tools, etc., on hand,	216 62
Horses, wagons, etc.,	2,350 00
Sundry accounts due the company,	2,178 86
Office furniture,	1,233 10
Cash on hand,	6,097 96
Notes receivable,	75 00
Sinking fund,	8,031 14

Total assets, as per books of the company, \$409,198 47

LIABILITIES.

Capital stock,	\$175,000 00
Bonds issued,	48,000 00
Notes payable,	20,000 00
Unpaid bills,	11,940 11
Deposits,	268 89
Interest accrued but not due,	1,000 00
Premium on capital stock,	6,000 00

Total liabilities, as per books of the company, \$262,209 00
 Profit and loss balance, 146,989 47

\$409,198 47

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$27,108 79	
For distribution,	21,377 23	
management,	4,665 68	
taxes,	5,884 13	
incidentals,	5,491 33	
	<hr/>	
	\$64,527 16	
Income from sale of light and power,		\$103,368 96
Balance to profit and loss,	38,841 80	
	<hr/>	<hr/>
	\$103,368 96	\$103,368 96

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$130,769 19
Balance of manufacturing account,		38,841 80
Interest received,		643 61
Jobbing,		174 99
Interest paid,	\$3,100 26	
Dividends declared,	12,250 00	
Depreciation,	5,000 00	
Other items,	3,089 86	
Balance June 30, 1911,	146,989 47	
	<hr/>	<hr/>
	\$170,429 59	\$170,429 59

GLOUCESTER GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$51,921 07
Machinery and manufacturing appliances,	57,598 22
Street mains,	117,896 73
Meters,	15,984 51
Due for gas,	6,220 27
Gas coal on hand,	1,405 63
Coke on hand,	2,691 40
Tar on hand,	414 06
Enrichers on hand,	73 12
Purifying materials on hand,	412 02
Other materials on hand,	177 69
Stoves and gas fixtures on hand,	5,976 06
Horses, wagons, etc.,	2,230 70
Sundry accounts due the company,	11,601 93
Office furniture,	890 39
Cash on hand,	2,880 25
Investments,	5,000 00
	<hr/>
Total assets, as per books of the company,	\$283,374 05

LIABILITIES.

Capital stock,	\$150,000 00
Notes payable,	42,500 00
Unpaid bills,	18,598 66
Unpaid dividends,	4,500 00
Interest accrued but not due,	67 50

Premium on capital stock,	\$40,000 00
Depreciation fund,	12,500 00
Amounts due from the company, not included above,	449 74

Total liabilities, as per books of the company,	\$268,615 90
Profit and loss balance,	14,758 15

\$283,374 05

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$43,375 87	
For distribution,	4,331 62	
management,	17,391 54	
taxes,	6,108 56	
incidentals,	1,785 04	
	<hr/>	
	\$72,942 63	
Income from sale of gas,		\$74,224 05
residuals,		17,380 79
other sources,		600 00
Balance to profit and loss,	19,262 21	
	<hr/>	<hr/>
	\$92,204 84	\$92,204 84

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$73,293 46
Balance of manufacturing account,		19,262 21
Interest received,		128 18
Rents,		717 00
Jobbing,		2,995 31
Interest paid,	\$1,668 41	
Dividends declared,	27,000 00	
Depreciation fund,	12,500 00	
Reserve fund,	40,000 00	
Other items,	469 60	
Balance June 30, 1911,	14,758 15	
	<hr/>	<hr/>
	\$96,396 16	\$96,396 16

GREAT BARRINGTON ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$50,000 00
Steam plant,	1,105 59
Electric plant,	36,673 90
Electric lines,	41,104 37
Transformers,	10,022 03
Meters,	12,165 58
Arc lamps,	214 50
Due for electricity,	3,953 12
Fuel on hand,	10 50
Carbons on hand,	4 36
Oil and waste on hand,	32 05
Incandescent lamps on hand,	590 41
Other materials on hand,	2,681 51
Fixtures, tools, etc., on hand,	1,702 24

Sundry accounts due the company,	\$108 72
Office furniture,	460 83
Cash on hand,	6,217 55

Total assets, as per books of the company, \$167,047 26

LIABILITIES.

Capital stock,	\$125,000 00
Unpaid bills,	2,676 95

Total liabilities, as per books of the company, \$127,676 95

Profit and loss balance, 39,370 31

\$167,047 26

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$6,518 88	
For current bought,	2,474 34	
distribution,	3,425 17	
management,	7,936 77	
taxes,	1,404 94	
incidentals,	877 24	
	\$22,637 34	
Income from sale of light and power,		\$41,865 27
Balance to profit and loss,	19,227 93	
	\$41,865 27	\$41,865 27

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$29,608 95
Balance of manufacturing account,		19,227 93
Dividends declared,	\$9,375 00	
Other items,	91 57	
Balance June 30, 1911,	39,370 31	
	\$48,836 88	\$48,836 88

GREENFIELD ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

Real estate,	\$55,772 45
Steam plant,	94,513 37
Water power plant,	156,025 54
Electric plant,	62,533 27
Electric lines,	120,167 45
Transformers,	23,392 22
Meters,	17,809 87
Arc lamps,	2,986 62
Due for electricity,	12,568 94
Fuel on hand,	3,642 65
Oil and waste on hand,	140 10
Incandescent lamps on hand,	2,351 83
Globes on hand,	19 00
Other materials on hand,	25,576 69
Fixtures, tools, etc., on hand,	1,841 53

Horses, wagons, automobiles,	\$6,729 23
Sundry accounts due the company,	34,343 30
Office furniture,	1,447 22
Cash on hand,	7,183 64
Notes receivable,	61,400 00
Insurance prepaid,	2,218 99
Interest prepaid,	379 28

Total assets, as per books of the company,	\$693,043 19
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LIABILITIES.

Capital stock,	\$325,000 00
Bonds issued,	100,000 00
Notes payable,	225,000 00
Unpaid bills,	14,693 94
Deposits,	30 00
Interest due but not paid,	37 50
Interest accrued but not due,	3,057 91
Amounts due from the company, not included above,	122 29

Total liabilities, as per books of the company,	\$667,941 64
Profit and loss balance,	25,101 55

\$693,043 19

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$22,179 40	
For current bought,	13,502 15	
distribution,	22,066 65	
management,	12,841 15	
taxes,	6,543 41	
incidentals,	1,339 80	
	<hr/>	
	\$78,472 56	
Income from sale of light and power,		\$132,629 64
Balance to profit and loss,	54,157 08	
	<hr/>	
	\$132,629 64	\$132,629 64

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$22,768 64
Balance of manufacturing account,		54,157 08
Interest received,		50 00
Other items of income,		1,041 57
Interest paid,	\$12,865 74	
Dividends declared,	19,500 00	
Depreciation,	20,550 00	
Balance June 30, 1911,	25,101 55	
	<hr/>	
	\$78,017 29	\$78,017 29

GREENFIELD GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$49,508 15
Machinery and manufacturing appliances,	54,342 99
Street mains,	75,364 09
Services,	35,561 76
Meters,	15,193 04
Due for gas,	2,395 23
Gas coal on hand,	1,242 60
Enrichers on hand,	376 15
Other materials on hand,	6,635 64
Stoves on hand,	1,188 90
Sundry accounts due the company,	3,794 93
Office furniture,	265 00
Cash on hand,	1,310 46
Investments,	677 51

Total assets, as per books of the company, **\$247,856 45**

LIABILITIES.

Capital stock,	\$116,850 00
Bonds issued,	75,000 00
Notes payable,	48,500 00
Interest due but not paid,	25 00
Interest accrued but not due,	125 41

Total liabilities, as per books of the company, **\$240,500 41**
 Profit and loss balance, **7,356 04**

\$247,856 45

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$9,509 63	
For distribution,	2,162 06	
management,	4,835 13	
taxes,	2,685 66	
incidentals,	314 98	
	\$19,507 46	
Income from sale of gas,		\$28,366 80
Balance to profit and loss,	8,859 34	
	\$28,366 80	\$28,366 80

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$8,636 41
Balance of manufacturing account,		8,859 34
Interest paid,	\$6,932 38	
Dividends declared,	2,880 00	
Other items,	327 33	
Balance June 30, 1911,	7,356 04	
	\$17,495 75	\$17,495 75

GREGORY, J. D.

(Princeton.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$358 34	
Income from sale of gas,		\$341 28
Balance to profit and loss,		17 06
	<hr/>	<hr/>
	\$358 34	\$358 34

HADLEY LIGHTING COMPANY.

ASSETS.

Real estate,	\$445 94
Machinery and manufacturing appliances,	878 88
Street mains and services,	473 45
Meters,	95 97
Due for gas,	34 45
Other materials on hand,	54 80
Cash on hand,	71 12
	<hr/>
Total assets, as per books of the company,	\$2,054 61

LIABILITIES.

Capital stock,	\$1,725 00
Notes payable,	250 01
	<hr/>
Total liabilities, as per books of the company,	\$1,975 01
Profit and loss balance,	79 60
	<hr/>
	\$2,054 61

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$187 35	
For management,	6 36	
taxes,	12 56	
incidentals,	35 00	
	<hr/>	
	\$241 27	
Income from sale of gas,		\$326 29
Balance to profit and loss,	85 02	
	<hr/>	<hr/>
	\$326 29	\$326 29

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$2 67
Balance of manufacturing account,		85 02
Jobbing,		5 03
Interest paid,	\$13 12	
Balance June 30, 1911,	79 60	
	<hr/>	<hr/>
	\$92 72	\$92 72

HATFIELD GAS COMPANY.

ASSETS.

Real estate,	\$626 67
Machinery and manufacturing appliances,	967 70
Street mains,	5,189 96
Services,	218 04
Meters,	263 89
Due for gas,	41 38
Other materials on hand,	15 75
Fixtures on hand,	2 40
Cash on hand,	8 68

Total assets, as per books of the company, \$7,334 47

LIABILITIES.

Capital stock,	\$4,750 00
Notes payable,	2,400 00

Total liabilities, as per books of the company, \$7,150 00
 Profit and loss balance, 184 47

\$7,334 47

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works, \$684 75		
For distribution, 76 51		
taxes, 16 66		
	\$777 92	
Income from sale of gas,		\$694 06
Balance to profit and loss,		83 86
	\$777 92	\$777 92

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$388 33
Balance of manufacturing account,	\$83 86	
Interest paid,	120 00	
Balance June 30, 1911,	184 47	
	\$388 33	\$388 33

HAVERHILL ELECTRIC COMPANY.

ASSETS.

Real estate,	\$186,937 99
Steam plant,	214,621 05
Electric plant,	78,493 08
Electric lines,	190,646 33
Transformers,	52,039 80
Meters,	35,828 22
Arc lamps,	26,107 54
Unfinished construction,	17,121 58
Due for electricity,	8,118 31
Fuel on hand,	966 14

Carbons on hand,	\$815 57
Incandescent lamps on hand,	3,270 52
Globes on hand,	133 46
Other materials on hand,	25,995 45
Motors on hand,	1,324 73
Fixtures, tools, etc., on hand,	9,763 71
Horses, wagons, etc.,	5,255 64
Sundry accounts due the company,	29,698 25
Office furniture,	7,037 69
Cash on hand,	13,814 71
Investments,	2,900 00

Total assets, as per books of the company, **\$910,689 77**

LIABILITIES.

Capital stock,	\$446,800 00
Bonds issued,	85,000 00
Notes payable,	169,400 00
Unpaid bills,	8,356 62
Deposits,	1,918 25
Interest accrued but not due,	1,937 12
Reserve fund,	50 51
Premium on capital stock,	142,770 00
Amounts due from the company, not included above,	1,565 42

Total liabilities, as per books of the company, **\$857,797 92**
 Profit and loss balance, **52,891 85**

\$910,689 77

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$44,688 01	
For current bought,	11 66	
distribution,	19,979 73	
management,	34,382 62	
taxes,	14,980 16	
incidentals,	11,359 11	
	\$125,401 29	
Income from sale of light and power,		\$178,153 26
other sources,		31 25
Balance to profit and loss,	52,783 22	
	\$178,184 51	\$178,184 51

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$53,804 07
Balance of manufacturing account,		52,783 22
Interest received,		220 12
Rents,		491 63
Other items of income,		1,825 77
Interest paid,	\$11,338 82	
Dividends declared,	35,744 00	
Other items,	9,150 14	
Balance June 30, 1911,	52,891 85	
	\$109,124 81	\$109,124 81

HAVERHILL GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$123,659 26
Machinery and manufacturing appliances,	398,936 66
Street mains and services,	242,060 79
Street lamps,	13,086 03
Meters,	56,346 48
Due for gas,	17,067 33
Gas coal on hand,	2,276 09
Gas on hand,	248 00
Enrichers on hand,	2,623 93
Purifying materials on hand,	1,811 38
Other materials on hand,	15,728 08
Stoves on hand,	6,735 29
Fixtures, tools, etc., on hand,	13,322 94
Horses, wagons, etc.,	1,860 00
Sundry accounts due the company,	13,209 86
Office furniture,	1,900 20
Cash on hand,	41,742 37
Loans to Haverhill Gas Securities Company,	216,865 42
Taxes, interest and insurance prepaid,	4,861 62
Stocks, bonds and notes,	28,529 44
Office building and land,	17,000 00

Total assets, as per books of the company, \$1,219,871 17

LIABILITIES.

Capital stock,	\$75,000 00
Notes payable,	275,500 00
Unpaid bills,	11,913 00
Deposits,	13,819 47
Reserve fund,	260,000 00
Depreciation fund,	142,227 64
Amounts due from the company, not included above,	3,546 73

Total liabilities, as per books of the company, \$781,806 84

Profit and loss balance, 438,064 33

\$1,219,871 17

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$75,151 98	
For distribution,	29,691 80	
management,	25,793 72	
taxes,	13,832 42	
incidentals,	7,561 67	
	\$152,031 59	
Income from sale of gas,		\$199,360 33
other sources,		6,427 97
Balance to profit and loss,	53,756 71	
	\$205,788 30	\$205,788 30

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$437,089 11
Balance of manufacturing account,		53,756 71
Interest received,		885 54
Rents,		1,584 93
Other items of income,		436 34
Interest paid,	\$6,432 02	
Other items,	49,256 28	
Balance June 30, 1911,	438,064 33	
	<hr/>	<hr/>
	\$493,752 63	\$493,752 63

HUNTINGTON ELECTRIC LIGHT COMPANY.

ASSETS.

Steam plant,	\$2,000 00
Electric plant,	900 00
Electric lines,	1,000 00
Meters,	250 00
Arc lamps,	25 00
Due for electricity,	257 96
Carbons on hand,	1 00
Incandescent lamps on hand,	66 50
Sundry accounts due the company,	17 13
Cash on hand,	2,093 78
	<hr/>
Total assets, as per books of the company,	\$6,611 37

LIABILITIES.

Capital stock,	\$5,000 00
	<hr/>
Total liabilities, as per books of the company,	\$5,000 07
Profit and loss balance,	1,611 30
	<hr/>
	\$6,611 37

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At station,	\$833 97	
For distribution,	160 56	
management,	97 11	
taxes,	84 13	
incidentals,	55 00	
	<hr/>	
	\$1,230 77	
Income from sale of light and power,		\$1,794 96
other sources,		265 00
Balance to profit and loss,	829 19	
	<hr/>	<hr/>
	\$2,059 96	\$2,059 96

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$1,501 55
Balance of manufacturing account,		829 19
Interest received,		80 63
Dividends declared,	\$500 00	
Depreciation,	300 00	
Balance June 30, 1911,	1,611 37	
	<hr/>	<hr/>
	\$2,411 37	\$2,411 37

HYANNIS ACETYLENE GAS PLANT.

(Nickerson and Dyer, Owners.)

ASSETS.

Real estate,	\$369 00
Machinery and manufacturing appliances,	1,432 67
Street mains,	3,443 74
Services,	436 90
Meters,	331 38
Due for gas,	873 91
Other materials on hand,	80 00
Cash on hand,	96 79
Total assets, as per books of the plant,	<u>\$7,064 39</u>

LIABILITIES.

Capital invested,	\$6,013 69
Total liabilities, as per books of the plant,	<u>\$6,013 69</u>
Profit and loss balance,	1,050 70
	<u>\$7,064 39</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works, \$2,074 78		
For distribution, 257 65		
management, 1,028 50		
taxes, 28 10		
	<u>\$3,389 03</u>	
Income from sale of gas,		\$3,398 50
Balance to profit and loss, 9 47		
	<u>\$3,398 50</u>	<u>\$3,398 50</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,041 23
Balance of manufacturing account,		9 47
Balance June 30, 1911, \$1,050 70		
	<u>\$1,050 70</u>	<u>\$1,050 70</u>

HYDE PARK ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$52,883 71
Steam plant,	95,665 78
Electric plant,	121,939 35
Electric lines,	80,643 12
Transformers,	10,000 00
Meters,	10,000 00
Arc lamps,	10,000 00
Work in process,	99,003 39
Due for electricity,	12,165 92
Fuel on hand,	4,018 27
Carbons on hand,	148 80

Oil and waste on hand,	\$9 38
Incandescent lamps on hand,	1,352 37
Globes on hand,	31 88
Other materials on hand,	5,943 32
Motors on hand,	250 25
Fixtures, tools, etc., on hand,	190 91
Horses, wagons, etc.,	576 00
Sundry accounts due the company,	522 22
Office furniture,	247 95
Cash on hand,	5,582 82
Prepaid taxes and insurance,	1,705 33

Total assets, as per books of the company, \$512,880 77

LIABILITIES.

Capital stock,	\$287,500 00
Notes payable,	187,000 00
Unpaid bills,	3,014 41
Deposits,	846 30
Interest accrued but not due,	800 00
Reserve fund,	5,959 44
Depreciation fund,	5,522 14
Amounts due from the company, not included above,	3,459 29

Total liabilities, as per books of the company, \$494,101 58
 Profit and loss balance, 18,779 19

\$512,880 77

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station, \$49,907 40		
For distribution, 11,690 20		
management, 7,554 59		
taxes, 7,257 98		
incidentals, 2,371 62		
	\$78,781 79	
Income from sale of light and power,		\$118,401 19
other sources,		482 00
Balance to profit and loss,	40,101 40	
	\$118,883 19	\$118,883 19

PROFIT AND LOSS BALANCE.

	Dr.	Cr.
Balance June 30, 1910,		\$15,380 58
Balance of manufacturing account,		40,101 40
Interest received,		280 44
Rents,		480 00
Other items of income,		29 91
Interest paid,	\$8,261 14	
Dividends declared,	20,125 00	
Depreciation fund,	7,000 00	
Reserve fund,	1,300 00	
Other items,	807 00	
Balance June 30, 1911,	18,779 19	
	\$56,272 33	\$56,272 33

IPSWICH GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$3,875 00
Machinery and manufacturing appliances,	13,391 92
Street mains,	7,759 71
Meters,	3,181 07
Due for gas,	2,383 36
Gas coal on hand,	145 50
Enrichers on hand,	227 50
Office furniture,	29 50
Cash on hand,	724 39
Investments,	1,200 00

Total assets, as per books of the company, \$32,917 95

LIABILITIES.

Capital stock,	\$16,000 00
Notes payable,	14,800 00
Unpaid dividends,	119 50

Total liabilities, as per books of the company, \$30,919 50
 Profit and loss balance, 1,998 45

\$32,917 95

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$2,723 77	
For distribution,	6 16	
management,	1,277 08	
taxes,	392 22	
	\$4,399 23	
Income from sale of gas,		\$6,221 24
other sources,		24 00
Balance to profit and loss,	1,846 01	
	\$6,245 24	\$6,245 24

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,153 64
Balance of manufacturing account,		1,846 01
Interest received,		222 00
Interest paid,	\$743 20	
Dividends declared,	480 00	
Balance June 30, 1911,	1,998 45	
	\$3,221 65	\$3,221 65

LAWRENCE GAS COMPANY.

ASSETS.

Real estate (gas),	\$305,455 70
Machinery and manufacturing appliances (gas),	704,709 23
Street mains and services (gas),	665,980 57

Meters (gas),	\$153,053 69
Due for gas,	67,376 79
Gas coal on hand,	47,244 35
Coke on hand,	10,374 78
Tar on hand,	6,705 70
Aqua ammonia,	1,150 58
Enrichers on hand,	3,406 99
Purifying materials on hand,	2,287 19
Other gas materials on hand,	21,344 11
Stoves on hand,	8,062 66
Gas fixtures, tools, etc., on hand,	3,107 41
Real estate (electric),	24,048 81
Steam plant (electric),	76,766 26
Electric power plant,	556,711 37
Electric plant,	259,456 50
Electric lines,	373,472 65
Transformers,	36,532 60
Meters (electric),	44,806 14
Arc lamps,	39,086 19
Due for electricity,	39,067 06
Fuel on hand (electric),	4,530 44
Carbons on hand,	422 76
Oil and waste on hand,	50 04
Incandescent lamps on hand,	7,132 90
Globes on hand,	475 52
Other electric materials on hand,	18,063 70
Motors,	13,112 88
Horses, wagons, etc.,	12,238 02
Sundry accounts due the company,	37,169 65
Office furniture,	6,227 42
Cash on hand,	107,556 45
New storehouse,	19,618 46
Office building,	50,118 10
Insurance,	1,050 00
Investments,	74 10

Total assets, as per books of the company, \$3,728,047 77

LIABILITIES.

Capital stock,	\$1,900,000 00
Bonds issued,	300,000 00
Notes payable,	564,450 00
Unpaid bills,	26,261 89
Deposits,	11,423 00
Interest accrued but not due,	13,977 30
Reserve funds,	33,871 42
Depreciation account,	90,421 10
Premium on capital stock,	414,987 13

Total liabilities, as per books of the company, \$3,355,391 84

Profit and loss balance, 372,655 93

\$3,728,047 77

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$195,486 38	
For distribution,	32,689 62	
management,	33,566 86	
taxes,	39,681 64	
incidentals,	7,393 37	
	<hr/>	
	\$308,817 87	
Operating expenses (electric):		
At station,	\$69,882 86	
For distribution,	50,693 08	
management,	20,140 12	
taxes,	23,249 36	
incidentals,	6,237 15	
	<hr/>	
	170,202 57	
Income from sale of gas,		\$399,262 13
residuals,		32,207 61
sale of electric light and power,		273,476 80
other sources (electric),		586 49
Balance to profit and loss:		
Gas,	122,651 87	
Electric,	103,860 72	
	<hr/>	
	\$705,533 03	\$705,533 03

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$343,717 86
Balance of gas manufacturing account,		122,651 87
Balance of electric manufacturing account,		103,860 72
Interest received,		2,172 49
Rents,		584 42
Jobbing,		1,045 46
Interest paid,	\$36,394 84	
Dividends declared,	152,000 00	
Depreciation account,	10,000 00	
Other items,	2,982 05	
Balance June 30, 1911,	372,655 93	
	<hr/>	
	\$574,032 82	\$574,032 82

LEE ELECTRIC COMPANY.

ASSETS.

Street mains (gas),	\$500 00
Real estate,	13,941 48
Steam plant,	13,000 00
Electric plant,	5,000 00
Electric lines,	26,277 52
Transformers,	4,100 00
Meters,	3,200 09
Due for electricity,	2,876 34
Fuel on hand,	252 00
Oil and waste on hand,	34 50

Incandescent lamps on hand,	\$185 38
Motors on hand,	45 00
Fixtures, tools, etc., on hand,	407 14
Horses, wagons, etc.,	166 00
Office furniture,	54 25
Cash on hand,	320 21

Total assets, as per books of the company,	\$70,359 91
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LIABILITIES.

Capital stock,	\$30,000 00
Bonds issued,	30,000 00
Notes payable,	4,700 00
Interest accrued but not due,	414 16

Total liabilities, as per books of the company,	\$65,114 16
Profit and loss balance,	5,245 75

\$70,359 91

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$7,285 24	
For distribution,	1,047 01	
management,	1,083 17	
taxes,	524 85	
incidentals,	447 52	
	<hr/>	
	\$10,387 79	
Income from sale of light and power,		\$17,160 66
Balance to profit and loss,	6,772 87	
	<hr/>	
	\$17,160 66	\$17,160 66

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$5,102 79
Balance of manufacturing account,		6,772 87
Interest paid,	\$1,752 91	
Dividends declared,	1,500 00	
Depreciation,	3,377 00	
Balance June 30, 1911,	5,245 75	
	<hr/>	
	\$11,875 66	\$11,875 66

LENOX ELECTRIC COMPANY.

Assets.

Electric lines,	\$16,825 72
Transformers,	3,722 08
Meters,	3,438 02
Due for electricity,	2,614 24
Cash on hand,	4,708 75
Investments,	19,460 29

Total assets, as per books of the company;	\$50,769 10
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LIABILITIES.

Capital stock,	\$20,000 00
Unpaid bills,	812 62
<hr/>	
Total liabilities, as per books of the company,	\$20,812 62
Profit and loss balance,	29,956 48
<hr/>	
	\$50,769 10

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For current bought,	\$9,865 20	
distribution,	377 89	
management,	989 63	
taxes,	339 66	
	<hr/>	
	\$11,572 38	
Income from sale of light and power,		\$18,465 90
Balance to profit and loss,	6,893 52	
	<hr/>	<hr/>
	\$18,465 90	\$18,465 90

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$23,924 80
Balance of manufacturing account,		6,893 52
Interest received,		738 16
Dividends declared,	\$1,600 00	
Balance June 30, 1911,	29,956 48	
	<hr/>	<hr/>
	\$31,556 48	\$31,556 48

LEOMINSTER ELECTRIC LIGHT AND POWER COMPANY.

Assets.

Real estate,	\$16,353 97
Steam plant,	53,945 24
Electric plant,	40,965 06
Electric lines,	98,956 27
Transformers,	14,455 14
Meters,	16,327 08
Arc lamps,	6,564 18
Due for electricity,	7,738 48
Fuel on hand,	1,552 73
Carbons on hand,	68 85
Oil and waste on hand,	40 46
Incandescent lamps on hand,	644 88
Globes on hand,	36 23
Other materials on hand,	294 92
Horses, wagons, etc.,	406 74
Sundry accounts due the company,	1,920 78
Office furniture,	829 70
Cash on hand,	3,271 95
<hr/>	
Total assets, as per books of the company,	\$264,372 66

LIABILITIES.		
Capital stock,		\$80,000 00
Bonds issued,		70,000 00
Notes payable,		93,000 00
Unpaid bills,		1,316 51
Deposits,		798 00
Unpaid dividends,		1,600 00
Interest accrued but not due,		2,647 50
Depreciation fund,		7,165 34
Amounts due from the company, not included above,		2,296 37
Total liabilities, as per books of the company,		\$258,823 72
Profit and loss balance,		5,548 94
		<u>\$264,372 66.</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$22,943 17		
For distribution,	6,376 43		
management,	8,875 35		
taxes,	3,339 70		
incidentals,	1,241 66		
		\$42,776 31	
Income from sale of light and power,			\$62,406 63
Balance to profit and loss,		19,630 32	
		<u>\$62,406 63</u>	<u>\$62,406 63</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$8,461 06
Balance of manufacturing account,			19,630 32
Interest received,			147 63
Other items of income,			50 12
Interest paid,	\$8,572 12		
Dividends declared,	6,400 00		
Depreciation fund,	7,500 00		
Other items,	268 07		
Balance June 30, 1911,	5,548 94		
		<u>\$28,289 13</u>	<u>\$28,289 13</u>

LEOMINSTER GAS LIGHT COMPANY.

ASSETS.		
Real estate,		\$14,786 71
Machinery and manufacturing appliances,		65,147 75
Street mains,		101,009 89
Services,		12,388 30
Meters,		16,179 39
Due for gas,		4,754 64
Gas coal on hand,		1,626 38
Enrichers on hand,		346 00
Purifying materials on hand,		82 00
Fixtures, tools, etc., on hand,		4,627 13
Horses, wagons, etc.,		1,167 32

Sundry accounts due the company,	\$2,206 89
Office furniture,	1,727 14
Cash on hand,	2,686 44
Investments,	1,200 00

Total assets, as per books of the company, \$229,935 98

LIABILITIES.

Capital stock,	\$50,000 00
Bonds issued,	50,000 00
Notes payable,	99,500 00
Unpaid bills,	1,528 05
Deposits,	1,022 32
Unpaid dividends,	625 00
Interest accrued but not due,	2,816 67
Depreciation fund,	4,324 89
Amounts due from the company, not included above,	536 05

Total liabilities, as per books of the company, \$210,352 98

Profit and loss balance, 19,583 00

\$229,935 98

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$15,401 14	
For distribution,	2,788 61	
management,	8,725 97	
taxes,	2,706 80	
incidentals,	1,268 79	
	\$30,891 31	
Income from sale of gas,		\$42,412 04
Balance to profit and loss,	11,520 73	
	\$42,412 04	\$42,412 04

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$18,719 53
Balance of manufacturing account,		11,520 73
Interest received,		283 96
Other items of income,		8 60
Interest paid,	\$7,838 07	
Dividends declared,	2,500 00	
Other items,	611 75	
Balance June 30, 1911,	19,583 00	
	\$30,532 82	\$30,532 82

LEXINGTON GAS COMPANY.

ASSETS.

Real estate,	\$5,303 00
Machinery and manufacturing appliances,	4,174 00
Street mains,	18,462 65
Services,	582 92
Meters,	1,715 19
Due for gas,	474 65
Sundry accounts due the company,	1,226 36

Office furniture,	\$122 76
Cash on hand,	505 74
Notes receivable,	18,100 00

Total assets, as per books of the company,	\$50,667 27
Profit and loss balance,	595 51

\$51,262 78

LIABILITIES.

Capital stock,	\$40,000 00
Notes payable,	4,800 00
Unpaid bills,	6,333 82
Deposits,	20 00
Amounts due from the company, not included above,	108 96

Total liabilities, as per books of the company,	\$51,262 78
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MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$1,159 05	
For gas bought,	1,293 20	
distribution,	740 95	
management,	1,332 54	
taxes,	369 92	
incidentals,	121 85	
	<hr/>	
	\$5,017 51	
Income from sale of gas,		\$2,307 57
Balance to profit and loss,		2,709 94
	<hr/>	<hr/>
	\$5,017 51	\$5,017 51

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$3,271 04
Balance of manufacturing account,	\$2,709 94	
Interest received,		1,088 48
Other items of income,		138 53
Interest paid,	146 86	
Dividends declared,	1,600 00	
Other items,	636 76	
Balance June 30, 1911,		595 51
	<hr/>	<hr/>
	\$5,093 56	\$5,093 56

LOVELAND, WILLIAM O.

(Ashby.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$1,299 25	
For distribution,	69 00	
taxes,	49 38	
	<hr/>	
	\$1,417 63	
Income from sale of light and power,		\$1,312 23
Balance to profit and loss,		105 40
	<hr/>	<hr/>
	\$1,417 63	\$1,417 63

LOWELL ELECTRIC LIGHT CORPORATION.

ASSETS.

Real estate,	\$262,083 68
Steam plant,	449,937 94
Electric plant,	254,466 69
Electric lines,	616,423 63
Transformers,	117,143 90
Meters,	75,986 86
Arc lamps,	50,628 66
Due for electricity,	18,894 37
Fuel on hand,	17,578 98
Carbons on hand,	260 70
Oil and waste on hand,	302 54
Incandescent lamps on hand,	3,099 06
Globes on hand,	579 02
Other materials on hand,	31,023 90
Motors on hand,	5,158 88
Fixtures, tools, etc., on hand,	2,265 83
Horses, wagons and automobiles,	2,741 16
Sundry accounts due the company,	3,614 14
Office furniture,	1,057 29
Cash on hand,	79,984 62
Taxes, insurance and interest prepaid,	3,442 09
Bonding sinking fund,	30,637 37
Premium on bonds retired,	4,478 35
Total assets, as per books of the company,	\$2,031,789 66

LIABILITIES.

Capital stock,	\$1,023,000 00
Bonds issued,	92,000 00
Notes payable,	155,000 00
Unpaid bills,	8,778 32
Deposits,	2,082 61
Premium on capital stock,	265,594 25
Interest accrued but not due,	493 05
Bond sinking fund,	136,590 72
Replacement reserve,	160,535 65
Other reserved funds,	6,199 80
Amounts due from the company, not included above,	18,303 53
Total liabilities, as per books of the company,	\$1,868,577 93
Profit and loss balance,	163,211 73
	\$2,031,789 66

MANUFACTURING ACCOUNT.

Operating expenses:	DR.	CR.
At station,	\$134,164 03	
For distribution,	62,334 21	
management,	49,214 96	
taxes,	37,074 71	
incidentals,	6,105 41	
	\$288,893 32	
Income from sale of light and power,		\$443,071 53
Balance to profit and loss,	154,178 21	
	\$443,071 53	\$443,071 53

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$135,067 37
Balance of manufacturing account,		154,178 21
Interest received,		487 96
Jobbing,		2,031 50
Interest paid,	\$11,804 58	
Dividends declared,	81,840 00	
Sinking fund,	6,949 98	
Reserve fund,	25,000 00	
Other items,	2,948 75	
Balance June 30, 1911,	163,211 73	
	<hr/>	<hr/>
	\$291,755 04	\$291,755 04

LOWELL GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$1,283,267 65
Machinery and manufacturing appliances,	123,233 72
Street mains, services and meters,	234,058 15
Gas arcs,	24,182 14
Due for gas,	13,530 11
Gas coal on hand,	43,900 25
Coke on hand,	14,283 54
Tar on hand,	6,360 48
Ammoniacal liquor on hand,	1,883 40
Enrichers on hand,	5,710 95
Purifying materials on hand,	1,690 68
Other materials on hand,	45,671 88
Sundry accounts due the company,	44,285 54
Cash on hand,	24,309 03
Insurance,	1,571 20
Investments,	85,738 25
Total assets, as per books of the company,	<hr/> \$1,953,676 97

LIABILITIES.

Capital stock,	\$1,000,000 00
Notes payable,	25,000 00
Unpaid bills,	22,690 93
Deposits,	6,687 61
Interest accrued but not due,	191 70
Premium on capital stock,	417,167 91
Amounts due from the company, not included above,	2,173 73
Total liabilities, as per books of the company,	<hr/> \$1,473,901 88
Profit and loss balance,	479,775 09
	<hr/> \$1,953,676 97

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$248,901 48	
For distribution,	101,634 16	
management,	25,215 92	
taxes,	55,413 99	
incidentals,	6,219 90	
	<hr/>	
	\$437,385 45	

	DR.	CR.
Income from sale of gas,		\$542,517 71
residuals,		82,515 49
other sources,		13,768 34
Balance to profit and loss,	\$201,416 09	
	<hr/>	<hr/>
	\$638,801 54	\$638,801 54

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$452,339 69
Balance of manufacturing account,		201,416 09
Interest received,		236 92
Rents,		4,850 82
Other items of income,		420 63
Interest paid,	\$736 87	
Dividends declared,	120,000 00	
Depreciation,	48,496 85	
Other items,	10,255 34	
Balance June 30, 1911,	479,775 09	
	<hr/>	<hr/>
	\$659,264 15	\$659,264 15

LUDLOW MANUFACTURING ASSOCIATES.

(Ludlow.)

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At station, \$1,996 15		
For distribution, 2,073 58		
management, 413 19		
taxes, 627 73		
incidentals, 130 20		
	<hr/>	
	\$5,240 85	
Income from sale of light and power,		\$7,803 35
other sources		25 20
Balance to profit and loss,	2,587 70	
	<hr/>	<hr/>
	\$7,828 55	\$7,828 55

LYNN GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate (gas),	\$415,827 63
Machinery and manufacturing appliances (gas),	651,834 07
Street mains (gas),	494,385 31
Meters (gas),	106,459 12
Due for gas,	21,597 55
Gas coal on hand,	22,851 97
Coke on hand,	1,550 05
Tar on hand,	1,968 64
Ammoniacal liquor on hand,	93 50
Enrichers on hand,	790 89
Purifying materials on hand,	4,983 89
Other gas materials on hand,	39,506 60
Stoves on hand,	7,615 60
Fixtures, tools, etc., on hand,	656 97
Real estate (electric),	161,353 45

Steam plant (electric),	\$296,991 89
Electric plant,	202,205 46
Electric lines,	787,381 65
Transformers,	40,455 46
Meters (electric),	76,486 30
Arc lamps,	9,035 42
Due for electricity,	28,719 14
Fuel on hand (electric),	6,844 65
Carbons on hand,	242 42
Oil and waste on hand,	201 56
Incandescent lamps on hand,	477 13
Globes on hand,	150 76
Other electric materials on hand,	16,858 62
Motors on hand,	1,281 45
Electric fixtures on hand,	358 89
Horses, wagons, etc.,	19,986 17
Sundry accounts due the company,	16,109 13
Cash on hand,	430,401 66
Office building,	87,786 57
Insurance,	4,006 05
Other materials on hand,	1,349 05
Investments,	100 00
<hr/>	
Total assets, as per books of the company,	\$3,958,904 67

LIABILITIES.

Capital stock,	\$1,182,500 00
Unpaid bills,	56,230 25
Deposits,	14,596 58
Surplus invested in plant,	1,384,390 74
Premium on capital stock,	856,598 55
Reserve fund,	19,652 58
Depreciation fund,	88,730 92
<hr/>	
Total liabilities, as per books of the company,	\$3,602,699 62
Profit and loss balance,	356,205 05
<hr/>	
	\$3,958,904 67

MANUFACTURING ACCOUNT.

Operating expenses (gas):		Dr.	Cr.
At works,	\$232,681 34		
For distribution,	76,111 64		
management,	18,321 66		
taxes,	32,431 74		
incidentals,	8,582 44		
	<hr/>	\$368,128 82	
Operating expenses (electric):			
At station,	\$87,304 46		
For distribution,	65,820 98		
management,	17,770 70		
taxes,	30,739 22		
incidentals,	9,984 88		
	<hr/>	211,620 24	
Income from sale of gas,			\$520,681 82
residuals,			34,830 76
sale of electric light and power,			429,673 51

	Dr.	Cr.
Balance to profit and loss:		
Gas,	\$187,383 76	
Electric,	218,053 27	
	<hr/>	<hr/>
	\$985,186 09	\$985,186 09

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$2,171,367 97
Balance of gas manufacturing account,		187,383 76
Balance of electric manufacturing account,		218,053 27
Interest received,		5,296 39
Rents,		3,421 15
From consolidation of Marblehead Gas Company,		18,676 44
Interest paid,	\$5,329 60	
Dividends declared,	127,152 00	
Premium account transferred,	613,598 55	
Depreciation,	30,465 94	
Depreciation fund,	64,478 87	
Reserve fund,	17,852 58	
Amount carried to surplus invested in plant account,	1,384,390 74	
Other items,	4,725 65	
Balance June 30, 1911,	356,205 05	
	<hr/>	<hr/>
	\$2,604,198 98	\$2,604,198 98

MALDEN ELECTRIC COMPANY.

ASSETS.

Real estate,	\$201,757 55
Steam plant,	197,789 38
Electric plant,	115,473 49
Electric lines,	414,122 44
Transformers,	58,353 29
Meters,	73,501 83
Arc lamps,	17,855 95
Unfinished construction,	4,414 72
Due for electricity,	21,420 80
Fuel on hand,	1,058 32
Carbons on hand,	207 82
Incandescent lamps on hand,	7,717 66
Globes on hand,	115 16
Other materials on hand,	30,053 22
Motors on hand,	1,594 10
Fixtures, tools, etc., on hand,	2,528 45
Horses, wagons, etc.,	13,908 34
Sundry accounts due the company,	23,519 67
Office furniture,	8,549 32
Cash on hand,	27,182 04
Reserve fund,	21,036 42
Investments,	4,000 00

Total assets, as per books of the company, \$1,246,159 97

LIABILITIES.

Capital stock,	\$525,000 00
Bonds issued,	100,000 00
Notes payable,	250,000 00
Unpaid bills,	30,283 80
Deposits,	8,330 00
Interest accrued but not due,	3,205 24
Reserve fund,	671 03
Premium on capital stock,	144,500 00
Amounts due from the company, not included above,	7,370 80

Total liabilities, as per books of the company,	\$1,069,360 87
Profit and loss balance,	176,799 10

\$1,246,159 97

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$59,757 49	
For distribution,	55,904 20	
management,	40,877 20	
taxes,	19,905 96	
incidentals,	12,376 20	
	<hr/>	
	\$188,821 05	
Income from sale of light and power,		\$300,163 68
other sources,		4,674 58
Balance to profit and loss,	116,017 21	
	<hr/>	<hr/>
	\$304,838 26	\$304,838 26

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$145,880 94
Balance of manufacturing account,		116,017 21
Interest received,		1,665 42
Rents,		2,344 82
Other items of income,		3,602 82
Interest paid,	\$15,469 29	
Dividends declared,	52,600 00	
Depreciation,	15,384 22	
Other items,	9,358 60	
Balance June 30, 1911,	176,799 10	
	<hr/>	<hr/>
	\$269,511 21	\$269,511 21

MALDEN AND MELROSE GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$440,788 60
Machinery and manufacturing appliances,	609,154 39
Street mains,	709,866 20
Services,	92,651 34
Meters,	162,761 06
Work in process,	6,450 32
Due for gas,	6,590 75
Gas coal on hand,	16,652 91
Coke on hand,	381 27
Tar on hand,	1,067 20

Ammoniacal liquor on hand,	\$184 70
Enrichers on hand,	1,449 55
Purifying materials on hand,	445 52
Other materials on hand,	41,760 91
Stoves on hand,	3,391 22
Fixtures, tools, etc., on hand,	7,021 22
Horses, wagons, etc.,	17,288 84
Sundry accounts due the company,	68,568 67
Office furniture,	12,368 53
Cash on hand,	81,641 59
Investments,	2,900 00

Total assets, as per books of the company, \$2,283,384 79

LIABILITIES.

Capital stock,	\$1,584,000 00
Notes payable,	305,000 00
Unpaid bills,	35,745 42
Deposits,	10,716 00
Interest accrued but not due,	3,582 08
Reserved fund,	2,371 51
Premium on capital stock,	296,713 62
Amounts due from the company, not included above,	4,282 16

Total liabilities, as per books of the company, \$2,242,410 79

Profit and loss balance, 40,974 00

\$2,283,384 79

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$169,843 71	
For gas bought,	452 88	
distribution,	34,286 83	
management,	36,038 07	
taxes,	37,503 53	
incidentals,	10,574 80	
	<u>\$288,699 82</u>	
Income from sale of gas,		\$425,542 77
residuals,		21,730 13
other sources,		889 74
Balance to profit and loss,	159,462 82	
	<u>\$448,162 64</u>	<u>\$448,162 64</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$27,901 59
Balance of manufacturing account,		159,462 82
Interest received,		1,315 89
Rents,		2,321 58
Other items of income,		2,310 66
Interest paid,	\$16,902 31	
Dividends declared,	107,182 25	
Depreciation,	13,571 87	
Other items,	14,682 11	
Balance June 30, 1911,	40,974 00	

\$193,312 54 \$193,312 54

MANCHESTER ELECTRIC COMPANY.

Assets.		
Real estate,		\$14,793 76
Electric plant,		7,990 00
Electric lines,		139,049 61
Transformers,		7,467 52
Meters,		5,396 35
Due for electricity,		3,612 80
Sundry accounts due the company,		39 30
Office furniture,		100 00
Cash on hand,		5,420 02
Total assets, as per books of the company,		\$183,869 36
Profit and loss balance,		13,609 15
		<hr/> \$197,478 51

LIABILITIES.		
Capital stock,		\$116,500 00
Notes payable,		69,500 00
Unpaid bills,		1,539 84
Deposits,		888 67
Interest accrued but not due,		1,700 00
Depreciation fund,		6,700 00
Amounts due from the company, not included above,		650 00
Total liabilities, as per books of the company,		<hr/> \$197,478 51

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$77 32		
For current bought,	10,247 01		
distribution,	1,053 11		
management,	2,271 68		
taxes,	1,000 60		
incidentals,	190 00		
	<hr/>	\$14,839 72	
Income from sale of light and power,			\$29,817 16
Balance to profit and loss,		14,977 44	
		<hr/>	<hr/>
		\$29,817 16	\$29,817 16

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,		\$22,197 34	
Balance of manufacturing account,			\$14,977 44
Interest received,			27 16
Interest paid,		3,619 16	
Depreciation fund,		2,735 00	
Other items,		62 25	
Balance June 30, 1911,			13,609 15
		<hr/>	<hr/>
		\$28,613 75	\$28,613 75

MARION GAS COMPANY.

ASSETS.

Real estate (gas),	\$3,100 00
Machinery and manufacturing appliances (gas),	3,307 05
Street mains (gas),	15,532 39
Meters (gas),	452 19
Due for gas,	1,505 61
Other gas materials on hand,	572 50
Gas fixtures, tools, etc., on hand,	187 15
Electric plant,	11,261 20
Electric lines,	26,921 72
Transformers,	1,044 86
Meters (electric),	910 98
Due for electricity,	1,233 36
Sundry accounts due the company,	309 67

Total assets, as per books of the company, \$66,338 68

LIABILITIES.

Capital stock,	\$28,900 00
Notes payable,	30,200 00
Unpaid bills,	2,472 98
Interest accrued but not due,	216 73
Amounts due from the company, not included above,	275 93

Total liabilities, as per books of the company, \$62,065 64
 Profit and loss balance, 4,273 04

\$66,338 68

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$3,944 95	
For distribution,	538 41	
management,	366 94	
taxes,	257 45	
incidentals,	50 00	
	<u>\$5,157 75</u>	
Operating expenses (electric):		
For current bought,	\$4,829 35	
management,	1,285 27	
incidentals,	291 50	
	<u>6,406 12</u>	
Income from sale of gas,		\$6,776 91
Income from sale of electric light and power,		7,233 20
Balance to profit and loss:		
Gas,	1,619 16	
Electric,	827 08	
	<u>\$14,010 11</u>	<u>\$14,010 11</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$2,598 10
Balance of gas manufacturing account,		1,619 16
Balance of electric manufacturing account,		827 08
Jobbing,		73 57
Interest paid,	\$844 87	
Balance June 30, 1911,	4,273 04	
	<hr/>	<hr/>
	\$5,117 91	\$5,117 91

MARLBOROUGH ELECTRIC COMPANY.

ASSETS.

Real estate,	\$27,784 97
Steam plant,	65,786 48
Electric plant,	75,237 22
Electric lines,	174,365 69
Transformers,	22,474 03
Meters,	22,064 59
Due for electricity,	13,711 14
Fuel on hand,	591 79
Carbons on hand,	34 40
Oil and waste on hand,	57 96
Incandescent lamps on hand,	2,247 99
Other materials on hand,	5,472 84
Motors on hand,	613 00
Fixtures, tools, etc., on hand,	1,080 18
Horses, wagons, etc.,	2,124 97
Sundry accounts due the company,	49 53
Office furniture,	687 00
Cash on hand,	15,349 45
Notes receivable,	5,183 50
Insurance and interest prepaid,	2,797 03
Investments,	15,468 78

Total assets, as per books of the company, \$453,182 54

LIABILITIES.

Capital stock,	\$200,000 00
Bonds issued,	13,400 00
Notes payable,	176,100 00
Unpaid bills,	10,201 39
Interest accrued but not due,	1,716 63
Amounts due from the company, not included above,	5,089 78

Total liabilities, as per books of the company, \$406,507 80
 Profit and loss balance, 46,674 74

\$453,182 54

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$9,514 10	
For current bought,	25,098 75	
distribution,	11,722 40	
management,	9,067 96	
taxes,	5,546 31	
incidentals,	2,052 27	
	<hr/>	
	\$63,001 79	
Income from sale of light and power,		\$100,972 62
Balance to profit and loss,	37,970 83	
	<hr/>	<hr/>
	\$100,972 62	\$100,972 62

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$55,631 22
Balance of manufacturing account,		37,970 83
Interest received,		1,078 88
Rents,		98 81
Interest paid,	\$10,646 66	
Dividends declared,	20,000 00	
Depreciation,	7,840 56	
Other items,	9,617 78	
Balance June 30, 1911,	46,674 74	
	<hr/>	<hr/>
	\$94,779 74	\$94,779 74

MARLBORO-HUDSON GAS COMPANY.

ASSETS.

Real estate,	\$31,464 81
Machinery and manufacturing appliances,	71,074 95
Street mains,	105,376 36
Services,	8,016 33
Meters,	23,381 91
Due for gas,	5,368 53
Gas coal on hand,	1,879 82
Coke on hand,	517 44
Tar on hand,	156 58
Carbons on hand,	50 00
Other materials on hand,	12,654 34
Stoves on hand,	1,132 90
Fixtures, tools, etc., on hand,	1,786 63
Maynard extension,	17,399 29
Westboro extension,	55 00
Horses, wagons, etc.,	390 00
Sundry accounts due the company,	3,803 80
Office furniture,	889 00
Cash on hand,	14,800 38
Insurance and interest prepaid,	1,961 29

Total assets, as per books of the company, \$302,159 36

LIABILITIES.	
Capital stock,	\$130,000 00
Bonds issued,	50,000 00
Notes payable,	74,000 00
Unpaid bills,	8,451 91
Deposits,	241 85
Interest accrued but not due,	177 50
Amounts due from the company, not included above,	1,610 75
Total liabilities, as per books of the company,	\$264,482 01
Profit and loss balance,	37,677 35
	<hr/>
	\$302,159 36

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At works,	\$24,244 29		
For distribution,	4,712 17		
management,	4,730 40		
taxes,	3,487 16		
incidentals,	251 33		
	<hr/>	\$37,425 35	
Income from sale of gas,			\$43,243 62
residuals,			5,607 14
other sources,			478 15
Balance to profit and loss,		11,903 56	
		<hr/>	<hr/>
		\$49,328 91	\$49,328 91

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$38,499 70
Balance of manufacturing account,			11,903 56
Interest received,			2,512 27
Rents,			200 00
Jobbing,			3,473 95
Other items of income,			52 65
Interest paid,	\$6,324 57		
Dividends declared,	5,850 00		
Depreciation,	5,915 21		
Other items,	875 00		
Balance June 30, 1911,	37,677 35		
	<hr/>	<hr/>	<hr/>
	\$56,642 13		\$56,642 13

MAYNARD.

(See AMERICAN WOOLEN COMPANY.)

MIDDLETON ELECTRIC LIGHT COMPANY.

ASSETS.	
Electric lines,	\$1,831 86
Transformers,	56 70
Meters,	56 25

Due for electricity,	\$17 60
Sundry accounts due the company,	84 38
Cash on hand,	299 61

Total assets, as per books of the company,	\$2,346 40
Profit and loss balance,	257 14
	<hr/>
	\$2,603 54

LIABILITIES.

Capital stock,	\$1,550 00
Notes payable,	1,000 00
Unpaid bills,	53 54

Total liabilities, as per books of the company,	\$2,603 54
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MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For current bought,	\$3 54	
distribution,	47 83	
management,	104 55	
taxes,	118 12	
	<hr/>	
	\$274 04	
Income from sale of light and power,		\$41 90
Balance to profit and loss,		232 14
		<hr/>
	\$274 04	\$274 04

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,	\$232 14	
Interest paid,	25 00	
Balance June 30, 1911,		\$257 14
	<hr/>	<hr/>
	\$257 14	\$257 14

MILFORD ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

Electric plant,	\$12,824 75
Electric lines,	55,830 35
Transformers,	6,937 48
Meters,	7,698 40
Arc lamps,	2,420 58
Due for electricity,	3,048 32
Carbons on hand,	28 29
Incandescent lamps on hand,	924 05
Globes on hand,	69 36
Other materials on hand,	336 46
Fixtures, tools, etc., on hand,	7 05
Sundry accounts due the company,	682 93
Office furniture,	438 73
Cash on hand,	589 67
Investments,	12,398 60
	<hr/>
Total assets, as per books of the company,	\$104,235 02

LIABILITIES.	
Capital stock,	\$40,000 00
Bonds issued,	40,000 00
Notes payable,	9,000 00
Unpaid bills,	2,720 46
Deposits,	90 00
Unpaid dividends,	1,200 00
Interest accrued but not due,	211 67
Reserved fund,	2,649 15
Depreciation fund,	3,945 02
Amounts due from the company, not included above,	663 65
<hr/>	
Total liabilities, as per books of the company,	\$100,479 95
Profit and loss balance,	3,755 07
<hr/>	
	\$104,235 02

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At station,	\$61 41		
For current bought,	11,625 37		
distribution,	2,908 36		
management,	5,199 90		
taxes,	1,263 99		
incidentals,	324 07		
	<hr/>	\$21,383 10	
Income from sale of light and power,			\$26,850 94
Balance to profit and loss,		5,467 84	
		<hr/>	<hr/>
		\$26,850 94	\$26,850 94

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$10,497 68
Balance of manufacturing account,			5,467 84
Interest received,			4 79
Rents,			1,046 39
Interest paid,	\$2,174 65		
Dividends declared,	8,600 00		
Depreciation fund,	1,500 00		
Other items,	986 98		
Balance June 30, 1911,	3,755 07		
	<hr/>	<hr/>	<hr/>
		\$17,016 70	\$17,016 70

MILFORD GAS LIGHT COMPANY.

ASSETS.	
Real estate,	\$16,050 00
Machinery and manufacturing appliances,	24,450 00
Street mains,	38,558 41
Services,	707 43
Meters,	5,114 67
Due for gas,	3,900 70
Gas coal on hand,	686 40

Coke on hand,	\$603 50
Tar on hand,	166 50
Enrichers on hand,	57 65
Purifying materials on hand,	121 77
Other materials on hand,	157 70
Fixtures, tools, etc., on hand,	2,846 22
Horses, wagons, etc.,	1,435 04
Sundry accounts due the company,	5,757 93
Office furniture,	838 02
Cash on hand,	697 22

Total assets, as per books of the company, \$102,049 16

LIABILITIES.

Capital stock,	\$72,300 00
Notes payable,	15,500 00
Unpaid bills,	1,745 84
Deposits,	93 00
Unpaid dividends,	2,169 00
Interest accrued but not due,	67 50
Amounts due from the company, not included above,	56 64

Total liabilities, as per books of the company, . . . \$91,931 98
 Profit and loss balance, 10,117 18

\$102,049 16

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$19,932 15	
For distribution,	2,245 61	
management,	6,021 77	
taxes,	1,984 22	
incidentals,	335 35	
	\$30,519 10	
Income from sale of gas,		\$27,731 84
residuals,		5,389 95
Balance to profit and loss,	2,602 69	
	\$33,121 79	\$33,121 79

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$22,867 56
Balance of manufacturing account,		2,602 69
Interest received,		57 24
Interest paid,	\$346 15	
Dividends declared,	7,953 00	
Depreciation,	4,596 04	
Depreciation fund,	1,500 00	
Other items,	1,015 12	
Balance June 30, 1911,	10,117 18	

\$25,527 49 \$25,527 49

MILLBURY ELECTRIC COMPANY.

MANUFACTURING ACCOUNT TO DECEMBER 31, 1910.

	Dr.	Cr.
Operating expenses:		
At station,	\$11 51	
For current bought,	2,550 58	
distribution,	1,203 30	
management,	430 99	
taxes,	35 51	
incidentals,	112 62	
	<hr/>	
	\$4,344 51	
Income from sale of light and power,		\$5,519 73
Balance to profit and loss,	1,175 22	
	<hr/>	<hr/>
	\$5,519 73	\$5,519 73

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$18,196 57	
Balance of manufacturing account,		\$1,175 22
Bonds and notes cancelled,		22,980 00
Cash received account sale of property,		17,000 00
Jobbing,		225 36
Interest paid,	646 98	
Depreciation,	4,274 03	
Loss on sale of electric plant,	17,640 47	
Other items,	622 53	
	<hr/>	<hr/>
	\$41,380 58	\$41,380 58

MILL RIVER ELECTRIC LIGHT COMPANY.

(Williamsburg.)

ASSETS.

Real estate,	\$8,239 09
Steam plant,	3,715 80
Electric plant,	3,948 45
Electric lines,	11,358 26
Transformers,	1,302 94
Meters,	2,513 60
Due for electricity,	1,043 73
Sundry accounts due the company,	1,708 42
Office furniture,	108 11
Cash on hand,	469 05
Investments,	500 00
	<hr/>
Total assets, as per books of the company,	\$34,907 45

LIABILITIES.

Capital stock,	\$15,000 00
Bonds issued,	12,000 00
Notes payable,	5,000 00

Unpaid bills,	\$716 98
Unpaid dividends,	375 00
Interest accrued but not due,	292 50
Amounts due from the company, not included above,	498 74

Total liabilities, as per books of the company,	\$33,883 22
Profit and loss balance,	1,024 23
	<hr/>
	\$34,907 45

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For current bought,	\$1,657 20	
distribution,	949 84	
management,	1,036 93	
taxes,	186 80	
incidentals,	104 87	
	<hr/>	
	\$3,935 64	
Income from sale of light and power,		\$7,096 44
other sources,		327 00
Balance to profit and loss,	3,487 80	
	<hr/>	<hr/>
	\$7,423 44	\$7,423 44

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$346 64	
Balance of manufacturing account,		\$3,487 80
Interest received,		53 73
Rents,		72 00
Interest paid,	1,027 83	
Dividends declared,	1,200 00	
Other items,	14 83	
Balance June 30, 1911,	1,024 23	
	<hr/>	<hr/>
	\$3,613 53	\$3,613 53

MONTAGUE ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

Real estate,	\$200 00
Water wheel,	87 20
Steam plant,	1,244 26
Electric plant,	851 87
Electric lines,	1,515 43
Meters,	712 24
Due for electricity,	239 89
Incandescent lamps on hand,	7 87
Fixtures, tools, etc., on hand,	51 10
Cash on hand,	64 65
Investments,	204 52

Total assets, as per books of the company,	\$5,179 03
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LIABILITIES.		
Capital stock,		\$2,000 00
Notes payable,		1,000 00
Unpaid bills,		237 86
Reserved fund,		200 00
Total liabilities, as per books of the company,		\$3,437 86
Profit and loss balance,		1,741 17
		<hr/> \$5,179 03

MANUFACTURING ACCOUNT.		DR.	CR.
Operating expenses:			
At station,	\$534 24		
For distribution,	65 50		
management,	28 66		
taxes,	41 80		
incidentals,	11 25		
	<hr/>	\$681 45	
Income from sale of light and power,			\$1,057 75
other sources,			89 50
Balance to profit and loss,		465 80	
		<hr/> \$1,147 25	<hr/> \$1,147 25

PROFIT AND LOSS ACCOUNT.		DR.	CR.
Balance June 30, 1910,			\$1,624 30
Balance of manufacturing account,			465 80
Interest received,			4 52
Jobbing,			1 00
Interest paid,	\$15 90		
Dividends declared,	160 00		
Depreciation,	128 55		
Reserve fund,	50 00		
Balance June 30, 1911,	1,741 17		
	<hr/>	<hr/> \$2,095 62	<hr/> \$2,095 62

NANTUCKET.

(See CITIZEN'S GAS, ELECTRIC AND POWER COMPANY.)

NASHUA RIVER PAPER CORPORATION.

MANUFACTURING ACCOUNT.		DR.	CR.
Operating expenses:			
At station,	\$1,095 00		
For distribution,	725 00		
	<hr/>	\$1,820 00	
Income from sale of light and power,			\$5,097 46
Balance to profit and loss,		3,277 46	
		<hr/> \$5,097 46	<hr/> \$5,097 46

NATICK GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$31,184 41
Machinery and manufacturing appliances,	7,714 97
Street mains and services,	36,744 64
Meters,	9,709 27
Due for gas,	2,622 63
Gas coal on hand,	147 00
Coke on hand,	400 00
Tar on hand,	75 00
Enrichers on hand,	155 54
Purifying materials on hand,	58 70
Other materials on hand,	710 71
Stoves on hand,	696 12
Fixtures, tools, etc., on hand,	166 43
Sundry accounts due the company,	1,357 24
Office furniture,	448 00
Cash on hand,	123 04
Total assets, as per books of the company,	<u>\$92,313 70</u>

LIABILITIES.

Capital stock,	\$50,000 00
Notes payable,	22,500 00
Unpaid bills,	1,906 06
Total liabilities, as per books of the company,	<u>\$74,406 06</u>
Profit and loss balance,	17,907 64
	<u>\$92,313 70</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$15,221 01	
For distribution,	2,517 98	
management,	2,811 04	
taxes,	1,602 31	
incidentals,	261 01	
	<u>\$22,413 35</u>	
Income from sale of gas,		\$22,504 06
residuals,		1,634 61
other sources,		196 28
Balance to profit and loss,	1,921 60	
	<u>\$24,334 95</u>	<u>\$24,334 95</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$21,281 49
Balance of manufacturing account,		1,921 60
Rents,		50 00
Interest paid,	\$783 50	
Dividends declared,	1,750 00	
Depreciation,	1,807 61	
Other items,	1,004 34	
Balance June 30, 1911,	17,907 64	
	<u>\$23,253 09</u>	<u>\$23,253 09</u>

NEW BEDFORD GAS AND EDISON LIGHT COMPANY.

ASSETS.	
Real estate (gas),	\$269,549 69
Machinery and manufacturing appliances, (gas)	180,615 58
Street mains (gas),	338,830 90
Services (gas),	57,981 15
Meters (gas),	94,884 03
Due for gas,	33,724 39
Gas coal on hand,	4,961 95
Coke on hand,	1,400 00
Tar on hand,	90 00
Enrichers on hand,	3,114 94
Purifying materials on hand,	822 50
Other gas materials on hand,	28,033 51
Stoves on hand,	5,535 91
Gas fixtures, tools, etc., on hand,	6,177 70
Real estate (electric),	74,961 46
Steam plant (electric),	145,545 98
Electric plant,	58,427 74
Electric lines,	231,283 42
Transformers,	11,313 82
Meters (electric),	32,127 38
Arc lamps,	7,291 10
Due for electricity,	17,462 60
Fuel on hand (electric),	461 60
Carbons on hand,	206 67
Oil and waste on hand,	143 03
Incandescent lamps on hand,	1,888 60
Globes on hand,	127 33
Other electric materials on hand,	17,075 12
Motors on hand,	7,016 04
Horses, wagons, etc.,	12,543 30
Sundry accounts due the company,	22,349 67
Office furniture,	4,163 91
Cash on hand,	63,172 82
Notes receivable,	1,151 52
Office building,	42,490 94
Investments,	33,872 32
Total assets, as per books of the company,	<u>\$1,810,798 62</u>
LIABILITIES.	
Capital stock,	\$1,059,800 00
Unpaid bills,	8,628 60
Deposits,	23,942 31
Unpaid dividends,	31,794 00
Interest due but not paid,	2,020 68
Premium on capital stock,	214,846 45
Reserved fund,	20,000 00
Depreciation fund,	62,588 24
Amounts due from the company, not included above,	25,003 21
Total liabilities, as per books of the company,	<u>\$1,448,623 49</u>
Profit and loss balance,	362,175 13
	<u>\$1,810,798 62</u>

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$143,893 28	
For distribution,	59,707 97	
management,	21,556 83	
taxes,	34,284 65	
incidentals,	4,050 44	
	<hr/>	
	\$263,493 17	
Operating expenses (electric):		
At station,	\$55,173 05	
For distribution,	21,950 52	
management,	10,778 42	
taxes,	17,142 32	
incidentals,	3,039 62	
	<hr/>	
	108,083 93	
Income from sale of gas,		\$375,288 11
residuals,		25,032 05
other sources (gas),		12,995 44
sale of electric light and power,		203,922 38
other sources (electric),		1,204 60
Balance to profit and loss:		
Gas,	149,822 43	
Electric,	97,043 05	
	<hr/>	<hr/>
	\$618,442 58	\$618,442 58

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$275,782 45
Balance of gas manufacturing account,		149 822 43
Balance of electric manufacturing account,		97,043 05
Interest received,		726 63
Rents,		2,677 72
Jobbing,		10,562 84
Other items of income,		169 32
Interest paid,	\$11,825 83	
Dividends declared,	126,921 00	
Depreciation fund,	25,000 00	
Insurance reserve,	9 616 06	
Other items,	1,246 42	
Balance June 30, 1911,	362,175 13	
	<hr/>	<hr/>
	\$536,784 44	\$536,784 44

NEWBURYPORT GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate (gas),	\$3,132 43
Machinery and manufacturing appliances (gas),	113,280 93
Street mains (gas),	42,376 58
Meters (gas),	9,068 36
Due for gas,	7,051 47
Gas coal on hand,	2,952 05
Coke on hand,	80 00
Tar on hand,	975 00
Enrichers on hand,	107 00
Purifying materials on hand,	157 50

Other gas materials on hand,	\$736 25
Stoves on hand,	903 73
Real estate (electric),	36,737 48
Steam plant (electric),	69,846 39
Electric plant,	34,364 33
Electric lines,	36,955 32
Transformers,	11,715 82
Meters (electric),	9,950 46
Arc lamps,	11,216 83
Due for electricity,	6,840 06
Fuel on hand (electric),	41 00
Carbons on hand,	59 00
Oil and waste on hand,	183 85
Incandescent lamps on hand,	49 00
Globes on hand,	16 30
Other electric materials on hand,	350 00
Automobiles,	1,100 00
Sundry accounts due the company,	1,811 47
Office furniture,	1,809 63
Cash on hand,	771 08
Investments,	1,000 00
Total assets, as per books of the company,	<u>\$405,639 32</u>

LIABILITIES.

Capital stock,	\$285,000 00
Notes payable,	52,200 00
Unpaid bills,	2,613 65
Deposits,	920 00
Total liabilities, as per books of the company,	<u>\$340,733 65</u>
Profit and loss balance,	64,905 67
	<u>\$405,639 32</u>

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$25,655 56	
For distribution,	4,484 32	
management,	3,947 42	
taxes,	3,909 43	
incidentals,	1,219 50	
	<u>\$39,216 23</u>	
Operating expenses (electric):		
At station,	\$17,906 96	
For distribution,	4,407 87	
management,	3,909 17	
taxes,	3,890 69	
incidentals,	1,464 57	
	<u>31,579 26</u>	
Income from sale of gas,		\$45,729 78
residuals,		6,469 06
sale of electric light and power,		52,110 57
other sources (electric),		1,168 00
Balance to profit and loss:		
Gas,	12,982 61	
Electric,	21,699 31	
	<u>\$105,477 41</u>	<u>\$105,477 41</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$56,062 43
Balance of gas manufacturing account,		12,982 61
Balance of electric manufacturing account,		21,699 31
Rents,		136 96
Jobbing,		331 18
Other items of income,		184 87
Interest paid,	\$3,442 62	
Dividends declared,	22,800 00	
Other items,	249 07	
Balance June 30, 1911,	64,905 67	
	<hr/>	<hr/>
	\$91,397 36	\$91,397 36

NEWTON AND WATERTOWN GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$98,726 95
Machinery and manufacturing appliances,	134,556 43
Street mains,	365,177 74
Services,	6,612 52
Meters,	54,856 83
Due for gas,	7,709 11
Coal on hand,	75 57
Coke on hand,	1 84
Tar on hand,	48 72
Enrichers on hand,	2,262 88
Other materials on hand,	52,276 28
Stoves and appliances,	2,575 87
Purchase of gas department, Waltham Gas Light Company,	490,228 48
Horses, wagons, etc.,	7,137 32
Sundry accounts due the company,	16,568 15
Office furniture,	2,331 70
Cash on hand,	7,378 93
Notes receivable,	116 23
Insurance,	517 71
	<hr/>
Total assets, as per books of the company,	\$1,249,159 26

LIABILITIES.

Capital stock,	\$560,000 00
Notes payable,	140,000 00
Unpaid bills,	23,993 34
Deposits,	3,736 79
Unpaid dividends,	72 00
Premium on capital stock,	130,000 00
Amounts due from the company, not included above,	2,973 85
	<hr/>
Total liabilities, as per books of the company,	\$860,775 98
Profit and loss balance,	388,383 28
	<hr/>

\$1,249,159 26

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$17,567 12	
For gas bought,	159,081 10	
distribution,	49,349 44	
management,	40,340 97	
taxes,	16,500 00	
incidentals,	2,238 40	
	<hr/>	
	\$285,077 03	
Income from sale of gas,		\$350,302 23
residuals,		84 98
other sources,		9,360 51
Balance to profit and loss,	74,670 69	
	<hr/>	<hr/>
	\$359,747 72	\$359,747 72

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$370,546 17
Balance of manufacturing account,		74,670 69
Interest received,		1,119 57
Rents,		3,224 78
Jobbing,		3,163 50
Other items of income,		12,003 65
Interest paid,	\$4,191 55	
Dividends declared,	67,200 00	
Depreciation,	3,145 69	
Other items,	1,807 84	
Balance June 30, 1911,	388,383 28	
	<hr/>	<hr/>
	\$464,728 36	\$464,728 36

NICKERSON AND DYER.

(See COTUIT and HYANNIS).

NILES (W. J.), TRUSTEE OF ESTATE OF.

(Boston.)

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$4,181 19	
For distribution,	668 58	
	<hr/>	
	\$4,849 77	
Income from sale of light and power,		\$6,242 81
other sources,		110 00
Balance to profit and loss,	1,503 04	
	<hr/>	<hr/>
	\$6,352 81	\$6,352 81

NORTH ADAMS GAS LIGHT COMPANY.

ASSETS.

Real estate (gas),	\$35,851 51
Machinery and manufacturing appliances (gas),	68,510 81
Street mains (gas),	61,139 54
Services (gas),	31,506 01
Meters (gas),	20,896 49
Due for gas,	7,442 95
Gas coal on hand,	640 92
Tar on hand,	535 50
Enrichers on hand,	1,476 25
Purifying materials on hand,	180 61
Other gas materials on hand,	180 00
Stoves, gas fixtures and tools on hand,	4,533 37
Real estate (electric),	78 037 62
Steam plant (electric),	121,740 57
Electric plant,	51,025 89
Electric lines,	57,898 27
Transformers,	14,128 93
Meters (electric),	17,990 42
Arc lamps,	6,450 00
Due for electricity,	13,876 09
Fuel on hand (electric),	943 42
Carbons on hand,	103 40
Oil and waste on hand,	73 60
Incandescent lamps on hand,	2,938 78
Globes on hand,	162 56
Other electric materials on hand,	2,959 18
Motors on hand,	10,299 92
Horses, wagons, etc.,	3,065 39
Sundry accounts due the company,	22,002 99
Office furniture,	2,908 71
Cash on hand,	8,426 55
Notes receivable,	141 02
Investments,	5,000 00
Total assets, as per books of the company,	\$653,067 27

LIABILITIES.

Capital stock,	\$200,000 00
Notes payable,	328,000 00
Unpaid bills,	6,247 22
Deposits,	1,833 35
Unpaid dividends,	5,000 00
Interest accrued but not due,	6,750 00
Premium on capital stock,	30,000 00
Depreciation fund,	23,504 70
Amounts due from the company, not included above,	3,343 29
Total liabilities, as per books of the company,	\$604,678 56
Profit and loss balance,	48,388 71

\$653,067 27

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses (gas):		
At works,	\$67,927 55	
For distribution,	7,048 77	
management,	14,976 65	
taxes,	3,594 90	
incidentals,	2,041 69	
	<hr/>	
	\$95,589 56	
Operating expenses (electric):		
At station,	\$61,361 55	
For distribution,	13,015 24	
management,	14,976 63	
taxes,	3,617 90	
incidentals,	2,811 46	
	<hr/>	
	95,782 78	
Income from sale of gas,		\$76,017 45
residuals,		21,614 75
sale of electric light and power,		125,600 96
Balance to profit and loss:		
Gas,	2,042 64	
Electric;	29,818 18	
	<hr/>	
	\$223,233 16	\$223,233 16

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$65,536 22
Balance of gas manufacturing account,		2,042 64
Balance of electric manufacturing account,		29,818 18
Interest received,		62 00
Rents,		372 00
Interest paid,	\$17,248 55	
Dividends declared,	23,000 00	
Depreciation,	7,245 64	
Other items,	1,948 14	
Balance June 30, 1911,	48,388 71	
	<hr/>	
	\$97,831 04	\$97,831 04

NORTHAMPTON ELECTRIC LIGHTING COMPANY.

ASSETS.

Real estate,	\$20,438 31
Steam plant,	59,215 10
Electric plant,	37,146 73
Electric lines,	81,492 33
Transformers,	10,294 53
Meters,	14,051 72
Arc lamps,	4,597 59
Due for electricity,	13,493 07
Fuel on hand,	2,243 26
Carbons on hand,	70 64
Oil and waste on hand,	59 68
Incandescent lamps on hand,	1,007 83

Globes on hand,	\$19 98
Other materials on hand,	2,299 86
Horses, wagons and motors on hand,	593 40
Sundry accounts due the company,	2,992 13
Office furniture,	1,867 29
Cash on hand,	5,841 81
Notes receivable,	23,000 00

Total assets, as per books of the company,	<u>\$280,725 26</u>
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LIABILITIES.

Capital stock,	\$117,400 00
Bonds issued,	78,000 00
Unpaid bills,	2,151 33
Deposits,	146 50
Unpaid dividends,	3,522 00
Depreciation fund,	33,614 60
Amounts due from the company, not included above,	5,558 12

Total liabilities, as per books of the company,	<u>\$240,392 55</u>
Profit and loss balance,	40,332 71

\$280,725 26

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At station,	\$23,908 74	
For distribution,	5,419 02	
management,	14,957 98	
taxes,	2,926 30	
incidentals,	1,217 24	
	<u>\$48,429 28</u>	
Income from sale of light and power,		\$96,103 44
other sources,		1,896 96
Balance to profit and loss,	49,571 12	
	<u>\$98,000 40</u>	<u>\$98,000 40</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$51,171 57
Balance of manufacturing account,		49,571 12
Interest received,		2,249 06
Rents,		6 00
Interest paid,	\$4,118 57	
Dividends declared,	25,828 00	
Depreciation fund,	29,000 00	
Other items,	3,718 47	
Balance June 30, 1911,	40,332 71	
	<u>\$102,997 75</u>	<u>\$102,997 75</u>

NORTHAMPTON GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$25,223 05
Machinery and manufacturing appliances,	55,532 81
Street mains,	60,806 86
Services,	4,641 75
Meters,	14,491 04
Due for gas,	5,389 70
Gas coal on hand,	2,353 92
Coke on hand,	666 36
Tar on hand,	300 00
Enrichers on hand,	321 40
Purifying materials on hand,	38 89
Other materials on hand,	240 00
Fixtures, tools, etc., on hand,	6,399 13
Horses, wagons, etc.,	1,252 07
Sundry accounts due the company,	3,549 47
Office furniture,	663 40
Cash on hand,	25,568 66
Investments,	3,834 54

Total assets, as per books of the company, **\$211,273 05**

LIABILITIES.

Capital stock,	\$120,000 00
Notes payable,	16,000 00
Unpaid bills,	1,621 35
Deposits,	334 00
Unpaid dividends,	3,600 00
Premium on capital stock,	16,400 00
Depreciation fund,	24,823 68
Amounts due from the company, not included above,	752 42

Total liabilities, as per books of the company, **\$183,531 45**
 Profit and loss balance, **27,741 60**

\$211,273 05

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$31,181 63	
For distribution,	6,528 38	
management,	15,027 27	
taxes,	5,127 56	
incidentals,	2,174 82	
	\$60,039 66	
Income from sale of gas,		\$72,762 18
residuals,		3,326 10
other sources,		642 75
Balance to profit and loss,	16,691 37	
	\$76,731 03	\$76,731 03

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$42,401 83
Balance of manufacturing account,		16,691 37
Interest received,		790 45
Rents,		515 33
Other items of income,		5 18
Interest paid,	\$145 44	
Dividends declared,	14,400 00	
Depreciation fund,	12,500 00	
Other items,	5,617 12	
Balance June 30, 1911,	27,741 60	
	<hr/>	<hr/>
	\$60,404 16	\$60,404 16

NORTH ATTLEBOROUGH GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$28,756 75
Machinery and manufacturing appliances,	6,091 23
Street mains,	30,104 45
Services,	1,619 75
Meters,	5,912 42
Due for gas,	4,095 78
Gas coal on hand,	5,017 22
Coke on hand,	581 00
Tar on hand,	189 00
Enrichers on hand,	310 00
Purifying materials on hand,	52 00
Other materials on hand,	1,121 26
Stoves on hand,	131 50
Fixtures, tools, etc., on hand,	11 84
Sundry accounts due the company,	1,066 09
Office furniture,	556 71
Cash on hand,	43,735 57
	<hr/>
Total assets, as per books of the company,	\$129,352 57

LIABILITIES.

Capital stock,	\$68,100 00
Unpaid dividends,	3,405 00
	<hr/>
Total liabilities, as per books of the company,	\$71,505 00
Profit and loss balance,	57,847 57
	<hr/>
	\$129,352 57

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$29,035 86	
For distribution,	2,345 00	
management,	3,739 02	
taxes,	3,063 48	
incidentals,	176 87	
	<hr/>	
	\$38,360 23	

	Dr.	Cr.
Income from sale of gas,		\$47,538 38
residuals,		7,319 06
other sources,		354 00
Balance to profit and loss,	\$16,851 21	
	<hr/>	<hr/>
	\$55,211 44	\$55,211 44

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$48,038 72
Balance of manufacturing account,		16,851 21
Interest received,		1,041 74
Rents,		100 03
Jobbing,		726 75
Other items of income,		297 40
Dividends declared,	\$6,810 00	
Depreciation,	2,333 47	
Other items,	64 81	
Balance June 30, 1911,	57,847 57	
	<hr/>	<hr/>
	\$67,055 85	\$67,055 85

NORTH DANA BOX & ELECTRIC LIGHT COMPANY.

(H. W. Mason, Owner.)

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$770 00	
For distribution,	40 00	
management,	10 00	
	<hr/>	
	\$820 00	
Income from sale of light and power,		\$1,584 00
Balance to profit and loss,	764 00	
	<hr/>	<hr/>
	\$1,584 00	\$1,584 00

NORTHFIELD ACETYLENE GAS LIGHT COMPANY.

(Charles E. Williams, Owner.)

ASSETS.

Real estate,	\$629 49
Machinery and manufacturing appliances,	1,042 59
Street mains,	1,395 10
Meters,	208 81
Other materials on hand,	45 67
	<hr/>
Total assets, as per books of the company,	\$3,321 66

LIABILITIES.

Capital invested,	\$3,275 99
Unpaid bills,	45 67
	<hr/>
Total liabilities, as per books of the company,	\$3,321 66

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$341 90	
For management,	5 00	
taxes,	39 86	
	<hr/>	
	\$386 76	
Income from sale of gas,		\$750 08
Balance to profit and loss,	363 32	
	<hr/>	<hr/>
	\$750 08	\$750 08

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,		\$363 32
Dividends declared,	\$363 32	
	<hr/>	<hr/>
	\$363 32	\$363 32

NORTON ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

Electric plant,	\$1,500 00
Electric lines,	6,069 12
Transformers,	255 45
Meters,	382 60
Due for electricity,	103 70
Fixtures, tools, etc., on hand,	13 00
Cash on hand,	4 97
	<hr/>

Total assets, as per books of the company, \$8,328 84

LIABILITIES.

Capital stock,	\$5,000 00
Notes payable,	3,160 00
Unpaid bills,	110 84
	<hr/>

Total liabilities, as per books of the company, \$8,270 84

Profit and loss balance, 58 00

\$8,328 84

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$330 00	
For distribution,	212 04	
management,	217 00	
taxes,	20 24	
	<hr/>	
	\$779 28	
Income from sale of light and power,		\$941 25
Balance to profit and loss,	161 97	
	<hr/>	<hr/>
	\$941 25	\$941 25

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$37 78
Balance of manufacturing account,		161 97
Interest paid,	\$141 75	
Balance June 30, 1911,	58 00	
	<hr/>	<hr/>
	\$199 75	\$199 75

NORWOOD GAS COMPANY.

ASSETS.

Real estate,	\$17,946 22
Machinery and manufacturing appliances,	16,646 05
Street mains,	35,575 43
Services,	3,523 84
Meters,	7,342 88
Due for gas,	2,332 36
Gas coal on hand,	232 50
Coke on hand,	600 00
Tar on hand,	321 30
Enrichers on hand,	56 80
Purifying materials on hand,	100 00
Stoves on hand,	535 64
Fixtures, tools, etc., on hand,	3,261 36
Horses, wagons, etc.,	1,186 48
Sundry accounts due the company,	2,535 58
Office furniture,	688 81
Cash on hand,	3,967 95

Total assets, as per books of the company, \$96,853 20

LIABILITIES.

Capital stock,	\$72,000 00
Notes payable,	2,000 00
Unpaid bills,	2,247 73
Unpaid dividends,	1,020 00

Total liabilities, as per books of the company, \$77,267 73

Profit and loss balance, 19,585 47

\$96,853 20

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At works,	\$13,064 51	
For distribution,	3,688 04	
management,	4,609 52	
taxes,	759 00	
incidentals,	288 20	
	<hr/>	
	\$22,409 27	
Income from sale of gas,		\$23,975 28
residuals,		2,989 34
other sources,		200 93
Balance to profit and loss,	4,756 28	
	<hr/>	<hr/>
	\$27,165 55	\$27,165 55

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$19,216 33
Balance of manufacturing account,		4,756 28
Interest received,		19 41
Jobbing,		218 94
Interest paid,	\$0 56	
Dividend,	4,320 00	
Other items,	304 93	
Balance June 30, 1911,	19,585 47	
	<hr/>	<hr/>
	\$24,210 96	\$24,210 96

OAK BLUFFS.

(See VINEYARD LIGHTING COMPANY.)

OLD COLONY GAS COMPANY.

ASSETS.	
Real estate,	\$21,527 25
Other construction expenditures,	5,672 13
Horses, wagons, etc.,	1,190 00
Cash on hand,	1,610 62
Total assets as per books of the company,	<hr/> \$30,000 00
LIABILITIES.	
Capital stock,	\$20,000 00
Notes payable,	10,000 00
Total liabilities as per books of the company,	<hr/> \$30,000 00

OTIS COMPANY, THE,

(Ware.)

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At works,	\$18,058 88	
For distribution,	1,497 09	
management,	562 49	
taxes,	502 72	
incidentals,	263 09	
	<hr/>	
	\$20,884 27	
Income from sale of gas,		\$13,701 71
residuals,		3,109 90
Balance to profit and loss,		4,072 66
	<hr/>	<hr/>
	\$20,884 27	\$20,884 27

PEOPLE'S GAS AND ELECTRIC COMPANY OF STONEHAM.

Assets.

Machinery and manufacturing appliances,	\$1,001 15
Street mains,	12,643 78
Services,	1,309 25
Meters,	5,350 48
Due for gas,	1,472 14
Unfinished construction,	56 72
Other materials on hand,	6,015 41
Stoves on hand,	438 75
Fixtures, tools, etc., on hand,	608 04
Sundry accounts due the company,	2,964 83
Office furniture,	88 89
Cash on hand,	3,084 82
Total assets, as per books of the company,	\$35,034 26
Profit and loss balance,	2,728 21

\$37,762 47

LIABILITIES.

Capital stock,	\$10,000 00
Notes payable,	10,000 00
Unpaid bills,	17,478 41
Deposits,	134 86
Interest accrued but not due,	17 71
Amounts due from the company, not included above,	131 49

\$37,762 47

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
For gas bought,	\$7,292 70	
distribution,	2,035 85	
management,	658 28	
taxes,	131 49	
incidentals,	352 65	
	<u>\$10,470 97</u>	
Income from sale of gas,		\$8,764 95
other sources,		10 00
Balance to profit and loss,		1,696 02
	<u>\$10,470 97</u>	<u>\$10,470 97</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$3,163 57	
Balance of manufacturing account,	1,696 02	
Interest received,		\$262 81
Other items of income,		3,091 80
Interest paid,	277 93	
Depreciation,	334 25	
Other items,	611 05	
Balance June 30, 1911,		2,728 21
	<u>\$6,082 82</u>	<u>\$6,082 82</u>

PITTSFIELD COAL GAS COMPANY.

ASSETS.

Real estate,	\$50,599 35
Machinery and manufacturing appliances,	141,437 77
Street mains,	110,652 47
Services,	48,632 57
Meters,	42,704 24
Due for gas,	13,078 37
Gas coal on hand,	1,166 10
Coke on hand,	558 07
Tar on hand,	1,030 64
Enrichers on hand,	1,563 74
Purifying materials on hand,	169 40
Other materials on hand,	10,884 38
Stoves on hand,	3,989 09
Fixtures, tools, etc., on hand,	13,514 44
Horses, wagons, etc.,	2,500 00
Sundry accounts due the company,	9,756 01
Cash on hand,	2,004 33
Investments,	7,000 00

Total assets, as per books of the company, \$461,240 97

LIABILITIES.

Capital stock,	\$396,000 00
Notes payable,	19,000 00
Deposits,	1,240 97

Total liabilities, as per books of the company, \$416,240 97

Profit and loss balance, 45,000 00

\$461,240 97

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$57,308 77	
For distribution,	19,721 58	
management,	13,565 07	
taxes,	9,380 20	
incidentals,	4,486 94	
	\$104,462 56	
Income from sale of gas,		\$144,703 79
residuals,		2,303 31
Balance to profit and loss,	42,544 54	
	\$147,007 10	\$147,007 10

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$40,000 00
Balance of manufacturing account,		42,544 54
Rents,		520 00
Jobbing,		2,684 96

	Dr.	Cr.
Interest paid,	\$105 49	
Dividends declared,	27,720 00	
Depreciation,	12,576 95	
Other items,	347 06	
Balance June 30, 1911,	45,000 00	
	<hr/>	<hr/>
	\$85,749 50	\$85,749 50

PITTSFIELD ELECTRIC COMPANY.

ASSETS.		
Real estate,		\$156,008 55
Steam plant,		167,897 90
Electric plant,		57,459 27
Electric lines,		128,998 82
Transformers,		27,036 06
Meters,		36,719 04
Arc lamps,		6,387 18
Nernst and Tungsten lamps,		6,554 54
Due for electricity,		19,209 56
Fuel on hand,		2,148 27
Oil and waste on hand,		158 49
Incandescent lamps on hand,		5,687 03
Other materials on hand,		12,344 33
Motors on hand,		18,973 15
Fixtures, tools, etc., on hand,		7,267 09
Sundry accounts due the company,		5,960 58
Office furniture,		556 50
Cash on hand,		55,745 75

Total assets, as per books of the company, \$715,112 11

LIABILITIES.		
Capital stock,		\$375,000 00
Bonds issued,		150,000 00
Notes payable,		79,500 00
Unpaid bills,		6,799 55
Deposits,		2,461 68
Premium on capital stock,		52,500 00
Interest accrued but not due,		1,658 23
Depreciation fund,		17,192 65

Total liabilities, as per books of the company, \$685,112 11

Profit and loss balance, 30,000 00

\$715,112 11

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$66,556 73	
For current bought,	2,806 74	
distribution,	34,003 38	
management,	11,948 91	
taxes,	6,446 33	
incidentals,	6,524 50	
	<hr/>	
	\$128,286 59	

	Dr.	Cr.
Income from sale of light and power,		\$172,634 97
other sources,		20,876 68
Balance to profit and loss,	\$65,225 06	
	<hr/>	<hr/>
	\$193,511 65	\$193,511 65

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$35,000 00
Balance of manufacturing account,		65,225 06
Other items of income,		1,914 11
Interest paid,	\$14,791 58	
Dividends declared,	18,000 00	
Depreciation,	21,804 57	
Depreciation fund,	17,192 65	
Other items,	350 37	
Balance June 30, 1911,	30,000 00	
	<hr/>	<hr/>
	\$102,139 17	\$102,139 17

PLYMOUTH ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$34,617 02
Steam plant,	48,217 11
Electric plant,	53,026 51
Electric lines,	60,390 78
Transformers,	9,983 72
Meters,	13,547 99
Arc lamps,	2,238 98
Nernst lamps,	940 69
Due for electricity,	8,555 09
Fuel on hand,	123 00
Carbons on hand,	10 00
Oil and waste on hand,	155 80
Incandescent lamps on hand,	616 66
Globes on hand,	10 00
Other materials on hand,	2,791 75
Cash on hand,	31 82
	<hr/>
Total assets, as per books of the company,	\$235,256 92

LIABILITIES.

Capital stock,	\$120,000 00
Bonds issued,	60,000 00
Notes payable,	18,251 87
Unpaid bills,	10,884 70
Unpaid dividends,	6 00
	<hr/>
Total liabilities, as per books of the company,	\$209,142 57
Profit and loss balance,	26,114 35
	<hr/>
	\$235,256 92

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$16,484 35	
For current bought,	304 48	
distribution,	4,770 39	
management,	7,944 24	
taxes,	1,487 42	
incidentals,	309 50	
	<hr/>	
	\$31,300 38	
Income from sale of light and power,		\$54,900 75
Balance to profit and loss,	23,600 37	
	<hr/>	<hr/>
	\$54,900 75	\$54,900 75

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$23,155 53
Balance of manufacturing account,		23,600 37
Interest paid,	\$5,692 32	
Dividends declared,	1,800 00	
Depreciation,	10,809 76	
Other items,	2,339 47	
Balance June 30, 1911,	26,114 35	
	<hr/>	<hr/>
	\$46,755 90	\$46,755 90

PLYMOUTH GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$10,150 00
Machinery and manufacturing appliances,	15,383 24
Street mains and services,	17,059 20
Meters,	3,099 40
Due for gas,	2,810 23
Gas coal on hand,	1,808 34
Coke on hand,	70 00
Tar on hand,	45 00
Enrichers on hand,	40 40
Stoves on hand,	150 00
Fixtures, tools, etc., on hand,	125 52
Sundry accounts due the company,	641 07
Cash on hand,	2,057 11
	<hr/>
Total assets, as per books of the company,	\$53,439 51

LIABILITIES.

Capital stock,	\$40,000 00
Notes payable,	1,000 00
Unpaid bills,	1,523 53
Unpaid dividends,	175 00
Amounts due from the company, not included above,	825 46
	<hr/>
Total liabilities, as per books of the company,	\$43,523 99
Profit and loss balance,	9,915 52
	<hr/>
	\$53,439 51

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$11,924 11	
For distribution,	795 05	
management,	4,959 34	
taxes,	930 40	
incidentals,	225 37	
	<hr/>	
	\$18,834 27	
Income from sale of gas,		\$22,785 92
residuals,		2,028 97
Balance to profit and loss,	5,980 62	
	<hr/>	<hr/>
	\$24,814 89	\$24,814 89

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$7,316 56
Balance of manufacturing account,		5,980 62
Interest received,		62 22
Rents,		10 00
Jobbing,		101 05
Other items of income,		327 23
Dividends declared,	\$2,800 00	
Depreciation,	1,000 00	
Other items,	82 16	
Balance June 30, 1911,	9,915 52	
	<hr/>	<hr/>
	\$13,797 68	\$13,797 68

PROVINCETOWN.

(See CAPE LIGHT, HEAT AND POWER COMPANY.)

QUINCY.

(See CITIZENS' GAS LIGHT COMPANY.)

QUINCY ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.

Real estate,	\$69,399 56
Steam plant,	81,525 58
Electric plant,	50,679 42
Electric lines,	142,620 61
Transformers,	22,416 88
Meters,	27,371 75
Are lamps,	9,167 75
Due for electricity,	12,121 58
Fuel on hand,	2,707 59

Carbons on hand,	\$18 52
Oil and waste on hand,	27 00
Incandescent lamps on hand,	892 60
Globes on hand,	134 75
Other materials on hand,	5,462 79
Motors on hand,	249 25
Tools on hand,	2,309 05
Horses, wagons, etc.,	7,367 53
Sundry accounts due the company,	693 23
Office furniture,	1,238 85
Cash on hand,	1,503 32
Prepaid interest and insurance,	1,202 25
Investments,	10,206 70

Total assets, as per books of the company, **\$449,316 56**

LIABILITIES.

Capital stock,	\$250,000 00
Bonds issued,	100,000 00
Notes payable,	43,500 00
Unpaid bills,	18,045 82
Deposits,	1,280 00
Interest accrued but not due,	75 00
Premium on capital stock,	6,185 00
Amounts due from the company, not included above,	3,540 35

Total liabilities, as per books of the company, **\$422,626 17**
 Profit and loss balance, **26,690 39**

\$449,316 56

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$28,994 28	
For distribution,	32,262 37	
management,	12,086 21	
taxes,	8,934 66	
incidentals,	2,212 93	
	\$84,490 45	
Income from sale of light and power,		\$126,468 20
Balance to profit and loss,	41,977 75	
	\$126,468 20	\$126,468 20

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$19,314 51
Balance of manufacturing account,		41,977 75
Rents,		97 82
Jobbing,		260 14
Other items of income,		71 43
Interest paid,	\$7,226 15	
Dividends declared,	19,928 00	
Depreciation,	5,441 49	
Other items,	2,435 62	
Balance June 30, 1911,	26,690 39	
	\$61,721 65	\$61,721 65

RANDOLPH AND HOLBROOK ELECTRIC LIGHT COMPANY.

(Estate of Charles Doughty, Owners.)

MANUFACTURING ACCOUNT.

Operating expenses.		Dr.	Cr.
At station,	\$9,973 34		
For distribution,	2,818 10		
management,	494 50		
taxes,	551 82		
incidentals,	1,045 35		
		\$14,883 11	
Income from sale of light and power,			\$17,367 11
other sources,			554 96
Balance to profit and loss,		3,038 96	
		\$17,922 07	\$17,922 07

REVERE.

(See SUBURBAN GAS AND ELECTRIC COMPANY.)

SADLER, THOMAS G.

(South Attleborough.)

MANUFACTURING ACCOUNT.

Operating expenses:		Dr.	Cr.
At works,	\$924 50		
For distribution,	19 00		
taxes,	17 92		
		\$961 42	
Income from sale of gas,			\$1,127 90
Balance to profit and loss,		166 48	
		\$1,127 90	\$1,127 90

SALEM ELECTRIC LIGHTING COMPANY.

ASSETS.

Real estate,	\$88,425 79
Steam plant,	122,341 14
Electric plant,	53,118 29
Electric lines,	167,796 03
Transformers,	33,053 55
Meters,	41,295 25
Arc lamps and Nernst lamps,	12,202 06
Unfinished construction,	114,040 10
Due for electricity,	12,920 55
Fuel on hand,	19 42
Carbons on hand,	131 11

Incandescent lamps on hand,	\$4,054 00
Globes on hand,	223 30
Other materials on hand,	22,982 09
Motors on hand,	992 16
Fixtures, tools, etc., on hand,	2,462 87
Horses, wagons, etc.,	5,315 80
Sundry accounts due the company,	12,672 64
Office furniture,	2,300 28
Cash on hand,	11,004 29
Notes receivable,	532 69
Investments,	32,277 34

Total assets, as per books of the company,	\$740,110 75
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LIABILITIES.

Capital stock,	\$275,000 00
Notes payable,	255,000 00
Unpaid bills,	24,195 46
Deposits, -	1,521 12
Interest accrued but not due,	964 04
Premium on capital stock,	25,000 00
Amounts due from the company, not included above,	4,364 76

Total liabilities, as per books of the company,	\$586,045 38
Profit and loss balance,	154,065 37

\$740,110 75

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At station,	\$49,052 86	
For distribution,	25,366 14	
management,	25,383 84	
taxes,	12,870 71	
incidentals,	7,065 42	
	<hr/>	
	\$119,738 97	
Income from sale of light and power,		\$201,185 47
other sources,		3,571 08
Balance to profit and loss,	85,017 58	
	<hr/>	<hr/>
	\$204,756 55	\$204,756 55

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$123,984 38
Balance of manufacturing account,		85,017 58
Interest received,		401 40
Other items of income,		825 61
Interest paid,	\$6,278 72	
Dividends declared,	22,000 00	
Depreciation,	21,579 90	
Other items,	6,304 98	
Balance June 30, 1911,	154,065 37	
	<hr/>	<hr/>
	\$210,228 97	\$210,228 97

SALEM GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$255,723 13
Machinery and manufacturing appliances,	113,396 09
Street mains,	234,030 53
Services,	41,225 21
Meters,	68,000 00
Due for gas,	22,378 52
Gas coal on hand,	15,036 28
Coke on hand,	21,000 00
Tar on hand,	2,300 00
Enrichers on hand,	327 12
Purifying materials on hand,	695 98
Other materials on hand,	26,869 98
Stoves on hand,	4,784 29
Fixtures, tools, etc., on hand,	8,000 00
Horses, wagons, etc.,	2,990 00
Sundry accounts due the company,	1,624 65
Office furniture,	3,703 44
Cash on hand	14,642 91
Investments,	3,463 00

Total assets, as per books of the company, \$840,191 13

LIABILITIES.

Capital stock,	\$499,600 00
Notes payable,	25,000 00
Deposits,	1,485 00
Premium on capital stock,	60,000 00
Amounts due from the company, not included above,	5,251 70

Total liabilities, as per books of the company, \$591,336 70

Profit and loss balance, 248,854 43

\$840,191 13

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$102,110 16	
For distribution,	19,525 72	
management,	15,248 50	
taxes,	13,307 72	
incidentals,	3,144 31	
	\$153,336 41	
Income from sale of gas,		\$174,452 91
residuals,		31,210 20
other sources,		902 28
Balance to profit and loss,	53,228 98	
	\$206,565 39	\$206,565 39

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$232,096 83
Balance of manufacturing account,		53,228 98
Interest received,		452 90
Rents,		631 05
Interest paid,	\$2,844 76	
Dividends declared,	33,968 00	
Depreciation,	592 57	
Other items,	150 00	
Balance June 30, 1911,	248,854 43	
	<hr/>	<hr/>
	\$286,409 76	\$286,409 76

SHELBURNE FALLS ELECTRIC LIGHT AND POWER COMPANY.

(C. H. Wilcox and E. J. Halligan, Owners.)

MANUFACTURING ACCOUNT TO SEPTEMBER 1, 1910.

	Dr.	Cr.
Operating expenses:		
At station,	\$404 57	
For distribution,	152 50	
management,	2 50	
	<hr/>	
	\$559 57	
Income from sale of light and power,		\$994 32
Balance to profit and loss,	434 75	
	<hr/>	<hr/>
	\$994 32	\$994 32

SHELBURNE FALLS ELECTRIC LIGHT AND POWER COMPANY.

Assets.

Real estate,	\$7,064 29
Steam plant,	13,666 50
Electric plant,	9,872 75
Electric lines,	31,230 96
Transformers,	2,565 04
Meters,	2,455 39
Street lamps,	258 90
Due for electricity,	804 25
Incandescent lamps on hand,	401 13
Fixtures, tools, etc., on hand,	421 83
Sundry accounts due the company,	512 20
Office furniture,	233 85
Cash on hand,	142 55
Notes receivable,	2,500 00
Insurance,	24 45
Investments,	462 00
	<hr/>
Total assets, as per books of the company,	\$72,616 09
Profit and loss balance,	133 19
	<hr/>
	\$72,749 28

LIABILITIES.

Capital stock,	\$45,000 00
Notes payable,	2,500 00
Unpaid bills,	24,922 10
Amounts due from the company, not included above,	327 18
	<hr/>
Total liabilities, as per books of the company,	\$72,749 28

MANUFACTURING ACCOUNT FROM SEPTEMBER 1, 1910.

Operating expenses:	Dr.	Cr.
For current bought,	\$3,532 28	
distribution,	2,369 19	
management,	1,394 61	
taxes,	334 68	
incidentals,	102 41	
	<hr/>	
	\$7,733 17	
Income from sale of light and power,		\$7,599 98
Balance to profit and loss,		133 19
	<hr/>	<hr/>
	\$7,733 17	\$7,733 17

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,	\$133 19	
Balance June 30, 1911, . . . . .		.\$133 19
	<hr/>	<hr/>
	\$133 19	\$133 19

SHIRLEY ELECTRIC PLANT.

(See G. M. Ballou.)

SOUTH HADLEY FALLS ELECTRIC LIGHT COMPANY.

ASSETS.

Steam plant,	\$249 71
Electric plant,	2,734 29
Electric lines,	3,769 81
Transformers,	1,306 69
Meters,	939 50
Due for electricity,	1,258 71
Oil and waste on hand,	17 50
Incandescent lamps on hand,	547 50
Other materials on hand,	22 00
Sundry accounts due the company,	103 59
Cash on hand,	1,024 44
	<hr/>
Total assets, as per books of the company,	\$11,973 74
Profit and loss balance,	8,072 97
	<hr/>
	\$20,046 71

LIABILITIES.									
Capital stock, . . . . .	.	.	.	.	.	.	.	.	\$7,000 00
Notes payable, . . . . .	.	.	.	.	.	.	.	.	2,500 00
Unpaid bills, . . . . .	.	.	.	.	.	.	.	.	10,546 71
Total liabilities, as per books of the company,									<u>\$20,046 71</u>

MANUFACTURING ACCOUNT.									
Operating expenses:							Dr.		Cr.
At station, . . . . .	.	.	.	.	.	\$10,334 21			
For distribution, . . . . .	.	.	.	.	.	807 00			
management, . . . . .	.	.	.	.	.	1,798 11			
taxes, . . . . .	.	.	.	.	.	343 88			
incidentals, . . . . .	.	.	.	.	.	114 02			
							\$13,397 22		
Income from sale of light and power, . . . . .	.	.	.	.	.			\$13,377 93	
Balance to profit and loss, . . . . .	.	.	.	.	.			19 29	
							<u>\$13,397 22</u>	<u>\$13,397 22</u>	

PROFIT AND LOSS ACCOUNT.									
							Dr.		Cr.
Balance June 30, 1910, . . . . .	.	.	.	.	.	\$6,528 97			
Balance of manufacturing account, . . . . .	.	.	.	.	.	19 29			
Jobbing, . . . . .	.	.	.	.	.			\$161 80	
Interest paid, . . . . .	.	.	.	.	.	75 84			
Depreciation, . . . . .	.	.	.	.	.	1,610 67			
Balance June 30, 1911, . . . . .	.	.	.	.	.			8,072 97	
							<u>\$8,234 77</u>	<u>\$8,234 77</u>	

SOUTH HADLEY GAS COMPANY.

ASSETS.									
Real estate, . . . . .	.	.	.	.	.	.	.	.	\$483 03
Machinery and manufacturing appliances, . . . . .	.	.	.	.	.	.	.	.	698 46
Street mains, . . . . .	.	.	.	.	.	.	.	.	2,536 06
Services, . . . . .	.	.	.	.	.	.	.	.	166 46
Meters, . . . . .	.	.	.	.	.	.	.	.	164 54
Other materials on hand, . . . . .	.	.	.	.	.	.	.	.	126 57
Cash on hand, . . . . .	.	.	.	.	.	.	.	.	502 48
Total assets, as per books of the company,									<u>\$4,677 60</u>
Profit and loss balance, . . . . .	.	.	.	.	.	.	.	.	322 40
									<u>\$5,000 00</u>
LIABILITIES.									
Capital stock, . . . . .	.	.	.	.	.	.	.	.	<u>\$5,000 00</u>
Total liabilities, as per books of the company,									<u>\$5,000 00</u>

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$1,178 22	
For distribution,	359 82	
management,	74 36	
taxes,	102 00	
incidentals,	2 97	
	<u>\$1,717 37</u>	
Income from sale of gas,		\$1,770 17
other sources,		1 00
Balance to profit and loss,	<u>53 80</u>	
	<u>\$1,771 17</u>	<u>\$1,771 17</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$251 20	
Balance of manufacturing account,		\$53 80
Dividends declared,	125 00	
Balance June 30, 1911,		322 40
	<u>\$376 20</u>	<u>\$376 20</u>

SPENCER GAS COMPANY.

ASSETS.

Real estate (gas),	\$17,749 24
Machinery and manufacturing appliances (gas),	61,059 10
Street mains (gas),	40,762 03
Services (gas),	3,642 81
Meters (gas),	6,272 12
Due for gas,	2,140 24
Gas coal on hand,	160 01
Enrichers on hand,	153 47
Purifying materials on hand,	30 76
Stoves, gas fixtures, tools, etc., on hand,	1,879 30
Real estate (electric),	5,050 01
Steam plant (electric),	6,155 37
Electric plant,	4,282 22
Electric lines,	16,360 25
Transformers,	1,575 31
Meters (electric),	787 71
Arc lamps,	3,453 37
Due for electricity,	592 64
Fuel on hand (electric),	117 06
Carbons on hand,	22 53
Oil and waste on hand,	9 20
Incandescent lamps on hand,	273 02
Globes on hand,	11 94
Other electric materials on hand,	169 04
Horses, wagons, etc.,	175 00
Sundry accounts due the company,	25,725 54
Office furniture,	655 52
Cash on hand,	2,189 40
Office building,	3,797 58
Total assets, as per books of the company,	<u>\$205,251 79</u>

LIABILITIES.		
Capital stock,		\$97,500 00
Bonds issued,		85,000 00
Notes payable,		16,000 00
Unpaid bills,		1,254 08
Deposits,		82 50
Unpaid dividends,		975 00
Interest accrued but not due,		277 50
Amounts due from the company, not included above,		254 02
Total liabilities, as per books of the company,		\$201,343 10
Profit and loss balance,		3,908 69
		<u>\$205,251 79</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses (gas):			
At works,	\$12,525 92		
For distribution,	1,271 97		
management,	3,473 14		
taxes,	617 82		
incidentals,	682 37		
			\$18,571 22
Operating expenses (electric):			
At station,	\$4,067 41		
For distribution,	1,405 05		
management,	1,256 53		
taxes,	159 74		
incidentals,	290 61		
		7,179 34	
Income from sale of gas,			\$27,208 78
sale of electric light and power,			6,574 65
Balance to profit and loss:			
Gas,		8,637 56	
Electric,			604 69
		<u>\$34,388 12</u>	<u>\$34,388 12</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$4,425 26
Balance of gas manufacturing account,			8,637 56
Balance of electric manufacturing account,	\$604 69		
Rents,			120 00
Jobbing,			449 09
Interest paid,	4,944 22		
Dividends declared,	3,900 00		
Other items,	274 31		
Balance June 30, 1911,	3,908 69		
		<u>\$13,631 91</u>	<u>\$13,631 91</u>

SPRINGFIELD (ELECTRIC).

(See UNITED ELECTRIC LIGHT COMPANY.)

SPRINGFIELD GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$510,258 03
Machinery and manufacturing appliances,	753,327 00
Street mains,	619,711 46
Services,	23,375 05
Meters,	237,637 81
Gas arc lamps,	28,064 27
Due for gas,	10,046 20
Gas coal on hand,	15,180 05
Coke on hand,	1,016 82
Tar on hand,	3,705 89
Ammoniacal liquor on hand,	979 92
Enrichers on hand,	3,236 91
Purifying materials on hand,	2,224 17
Other materials on hand,	43,524 47
Fixtures, tools, etc., on hand,	10,804 31
Horses, wagons, etc.,	9,578 63
Sundry accounts due the company,	53,744 54
Office furniture,	8,329 50
Cash on hand,	47,411 76
Notes receivable,	455 00
Reserved fund,	21,119 50

Total assets, as per books of the company, \$2,403,732 19

LIABILITIES.

Capital stock,	\$1,137,500 00
Notes payable,	320,000 00
Unpaid bills,	23,050 71
Deposits,	9,179 35
Interest accrued but not due,	3,696 43
Reserved fund,	9,364 47
Premium on capital stock,	637,500 00
Amounts due from the company, not included above,	2,663 43

Total liabilities, as per books of the company, \$2,142,954 39

Profit and loss balance, 260,777 80

\$2,403,732 19

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$235,086 73	
For distribution,	51,930 15	
management,	53,214 44	
taxes,	39,510 64	
incidentals,	12,838 05	
	<u>\$392,580 01</u>	
Income from sale of gas,		\$528,908 34
residuals,		37,657 44
other sources,		177 00
Balance to profit and loss,	174,162 77	
	<u>\$566,742 78</u>	<u>\$566,742 78</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$250,536 22
Balance of manufacturing account,		174,162 77
Interest received,		1,883 41
Rents,		2,580 73
Other items of income,		1,669 51
Interest paid,	\$17,238 77	
Dividends declared,	131,339 50	
Depreciation,	6,674 26	
Other items,	14,802 31	
Balance June 30, 1911,	260,777 80	
	<hr/>	<hr/>
	\$430,832 64	\$430,832 64

STEAM AND POWER COMPANY.

(Boston.)

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$17,189 60	
Income from sale of electric power,		\$19,099 56
Balance to profit and loss,	1,909 96	
	<hr/>	<hr/>
	\$19,099 56	\$19,099 56

STONEHAM.

(See PEOPLE'S GAS AND ELECTRIC COMPANY.)

STOCKBRIDGE LIGHTING COMPANY.

ASSETS.

Electric plant,	\$995 48
Electric lines,	37,463 18
Transformers,	2,837 77
Meters,	2,016 26
Due for electricity,	1,324 62
Sundry accounts due the company,	62 10
Cash on hand,	298 80

Total assets, as per books of the company, \$44,998 21

LIABILITIES.

Capital stock,	\$40,000 00
Notes payable,	3,000 00
Unpaid bills,	384 54

Total liabilities, as per books of the company, \$43,384 54
 Profit and loss balance, 1,613 67

\$44,998 21

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$49 00	
For current bought,	2,969 22	
distribution,	639 63	
management,	743 78	
taxes,	93 00	
incidentals,	163 34	
	<u>\$4,657 97</u>	
Income from sale of light and power,		\$10,587 95
other sources,		20 13
Balance to profit and loss,	5,950 11	
	<u>\$10,608 08</u>	<u>\$10,608 08</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$385 85
Balance of manufacturing account,		5,950 11
Interest paid,	\$35 50	
Dividends declared,	2,400 00	
Depreciation,	2,286 79	
Balance June 30, 1911,	1,613 67	
	<u>\$6,335 96</u>	<u>\$6,335 96</u>

SUBURBAN GAS AND ELECTRIC COMPANY.

ASSETS.

Machinery and manufacturing appliances (gas),	\$38,683 58
Street mains (gas),	238,824 55
Services (gas),	53,290 94
Meters (gas),	70,699 08
Due for gas,	2,942 12
Other gas materials on hand,	7,508 67
Stoves on hand,	2,285 30
Gas fixtures on hand,	634 80
Real estate (electric),	98,784 76
Steam plant (electric),	102,609 87
Electric plant,	56,652 14
Electric lines,	105,108 51
Transformers,	31,359 95
Meters (electric),	42,141 93
Arc lamps,	9,640 52
Unfinished construction,	200 79
Due for electricity,	11,703 07
Fuel on hand (electric),	5,751 06
Carbons on hand,	311 47
Incandescent lamps on hand,	1,556 64
Globes on hand,	146 47
Other electric materials on hand,	11,394 11
Electric fixtures, tools, etc., on hand,	2,247 81
Horses, wagons, etc.,	10,883 83

Sundry accounts due the company,	\$7,056 20
Office furniture,	4,046 53
Cash on hand,	27,263 97
Unpaid stock subscriptions to capital stock,	6,510 00
Investments,	32,500 00

Total assets, as per books of the company,	\$982,738 67
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LIABILITIES.

Capital stock,	\$675,200 00
Capital stock subscribed but unissued,	9,300 00
Notes payable,	90,000 00
Unpaid bills,	18,673 84
Deposits,	10,365 62
Interest accrued but not due,	460 67
Reserved fund,	370 00
Premium on capital stock,	96,900 00
Amounts due from the company, not included above,	3,010 04

Total liabilities, as per books of the company,	\$904,280 17
Profit and loss balance,	78,458 50

\$982,738 67

MANUFACTURING ACCOUNT.

Operating expenses (gas):	DR.	CR.
At works,	\$402 65	
For gas bought,	50,759 47	
distribution,	8,727 54	
management,	13,648 26	
taxes,	8,418 87	
incidentals,	2,608 97	
	<hr/>	
	\$84,565 76	
Operating expenses (electric):		
At station,	\$25,209 68	
For current bought,	9,747 10	
distribution,	23,849 53	
management,	17,340 64	
taxes,	11,587 87	
incidentals,	4,945 68	
	<hr/>	
	92,680 50	
Income from sale of gas,		\$113,043 68
other sources (gas),		212 97
sale of electric light and power,		154,347 92
other sources (electric),		1,981 55
Balance to profit and loss:		
Gas,	28,690 89	
Electric,	63,648 97	
	<hr/>	
	\$269,586 12	\$269,586 12

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$64,968 81
Balance of gas manufacturing account,		28,690 89
Balance of electric manufacturing account,		63,648 97
Interest received,		473 48
Other items of income,		4,718 79

	Dr.	Cr.
Interest paid,	\$7,417 86	
Dividends declared,	53,017 00	
Depreciation,	16,397 35	
Other items,	7,210 23	
Balance June 30, 1911,	78,458 50	
	<hr/>	<hr/>
	\$162,500 94	\$162,500 94

SUNDERLAND ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.		
Real estate,		\$1,500 00
Steam plant,		2,606 31
Electric plant,		1,103 42
Electric lines,		4,752 64
Transformers,		645 49
Meters,		418 02
Due for electricity,		325 90
Incandescent lamps on hand,		5 70
Other materials on hand,		77 44
Cash on hand,		745 26

Total assets, as per books of the company, \$12,180 18

LIABILITIES.		
Capital stock,		\$11,000 00
Notes payable,		500 00
Unpaid bills,		95 60

Total liabilities, as per books of the company, \$11,595 60

Profit and loss balance, 584 58

\$12,180 18

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
For current bought,	\$1,665 40		
distribution,	73 75		
management,	70 40		
taxes,	142 82		
	<hr/>	\$1,952 37	
Income from sale of light and power,			\$2,990 65
Balance to profit and loss,		1,038 28	
		<hr/>	<hr/>
		\$2,990 65	\$2,990 65

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$79 40
Balance of manufacturing account,			1,038 28
Jobbing,			46 98
Interest paid,	\$30 08		
Dividends declared,	550 00		
Balance June 30, 1911,	584 58		
	<hr/>	<hr/>	<hr/>
	\$1,164 66		\$1,164 66

SUNDERLAND GAS COMPANY.

ASSETS.	
Real estate,	\$400 00
Machinery and manufacturing appliances,	200 00
Street mains,	550 00
Meters,	50 00
Other materials on hand,	22 44
Cash on hand,	171 38

Total assets, as per books of the company,	<u>\$1,393 82</u>
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LIABILITIES.	
Capital stock,	\$1,200 00
Total liabilities, as per books of the company,	<u>\$1,200 00</u>
Profit and loss balance,	193 82
	<u>\$1,393 82</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At works,	\$214 90		
For management,	29 10		
taxes,	8 50		
incidentals,	50 00		
	<u> </u>		
		\$302 50	
Income from sale of gas,			\$287 66
Balance to profit and loss,			14 84
		<u> </u>	<u> </u>
		\$302 50	\$302 50

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,			\$208 66
Balance of manufacturing account,	\$14 84		
Balance June 30, 1911,	193 82		
	<u> </u>	<u> </u>	<u> </u>
		\$208 66	\$208 66

TAUNTON GAS LIGHT COMPANY.

ASSETS.	
Real estate,	\$49,000 00
Machinery and manufacturing appliances,	124,000 00
Street mains,	115,000 00
Meters,	15,000 00
Due for gas,	23,404 84
Coal on hand,	7,837 92
Coke on hand,	2,475 00
Tar on hand,	472 50
Enrichers on hand,	255 72
Purifying materials on hand,	920 00

Other materials on hand,	\$528 30
Stoves on hand,	1,704 50
Fixtures, tools, etc., on hand,	7,483 88
Sundry accounts due the company,	5,895 05
Cash on hand,	365 79
Investments,	3,000 00

Total assets, as per books of the company, \$357,343 50

LIABILITIES.

Capital stock,	\$220,000 00
Notes payable,	10,000 00
Unpaid bills,	4,758 79
Deposits,	80 00
Premium on capital stock,	48,000 00

Total liabilities, as per books of the company, \$282,838 79

Profit and loss balance, 74,504 71

\$357,343 50

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$76,474 59	
For distribution,	8,446 13	
management,	8,324 83	
taxes,	6,053 43	
incidentals,	1,322 25	
	<hr/>	
	\$100,621 23	
Income from sale of gas,		\$118,380 23
residuals,		22,286 07
other sources,		5 30
Balance to profit and loss,	40,030 37	
	<hr/>	<hr/>
	\$140,651 60	\$140,651 80

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$68,273 47
Balance of manufacturing account,		40,030 37
Interest received,		249 03
Rents,		330 00
Jobbing,		381 06
Interest paid,	\$931 39	
Dividends declared,	19,000 00	
Depreciation,	14,720 26	
Other items,	107 57	
Balance June 30, 1911,	74,504 71	
	<hr/>	<hr/>
	\$109,263 93	\$109,263 93

TOWNSEND ELECTRIC PLANT.

(See U. S. ADAMS.)

TURNER, G. H.

(Charlemont.)

MANUFACTURING ACCOUNT.

Operating expenses:		Dr.	Cr.
At station,	\$1,272 50		
For distribution,	125 00		
taxes,	14 52		
		\$1,412 02	
Income from sale of light and power,			\$1,458 10
Balance to profit and loss,		46 08	
		<u>\$1,458 10</u>	<u>\$1,458 10</u>

TURNERS FALLS.

(See FRANKLIN ELECTRIC LIGHT COMPANY.)

TYNSBOROUGH ELECTRIC LIGHT COMPANY.

(A. A. Flint and L. A. Derby, Owners.)

ASSETS.

Electric plant,	\$2,402 39
Electric lines,	4,414 85
Transformers,	955 50
Meters,	540 54
Due for electricity,	214 46
Fixtures, tools, etc., on hand,	2 05
Cash on hand,	154 75
Total assets, as per books of the company,	<u>\$8,684 54</u>
Profit and loss balance,	1,291 95
	<u>\$9,976 49</u>

LIABILITIES.

Unpaid bills,	\$9,976 49
Total liabilities, as per books of the company,	<u>\$9,976 49</u>

MANUFACTURING ACCOUNT.

Operating expenses:		Dr.	Cr.
At station,	\$3,193 93		
For distribution,	399 46		
management,	294 00		
taxes,	37 40		
incidentals,	98 21		
		\$4,023 00	
Income from sale of light and power,			\$3,606 05
Balance to profit and loss,			416 95
		<u>\$4,023 00</u>	<u>\$4,023 00</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,	\$416 95	
Other items,	875 00	
Balance June 30, 1911,		\$1,291 95
	<hr/>	<hr/>
	\$1,291 95	\$1,291 95

UNION ELECTRIC LIGHT COMPANY.

(Franklin.)

ASSETS.

Real estate,	\$7,377 80
Steam plant,	12,751 62
Electric plant,	15,844 72
Electric lines,	60,078 82
Transformers,	6,937 66
Meters,	6,533 16
Arc lamps,	4,895 39
Due for electricity,	1,963 43
Carbons on hand,	26 51
Incandescent lamps on hand,	83 54
Other materials on hand,	531 91
Fixtures, tools, etc., on hand,	459 67
Horses, wagons, etc.,	145 08
Sundry accounts due the company,	737 42
Office furniture,	20 00
Cash on hand,	3,429 74
Insurance,	96 96
Total assets, as per books of the company,	<hr/> \$121,913 43

LIABILITIES.

Capital stock,	\$20,000 00
Bonds issued,	30,000 00
Notes payable,	63,423 65
Unpaid bills,	4,243 93
Reserved fund,	4,000 00
Amounts due from the company, not included above,	20 38
Total liabilities, as per books of the company,	<hr/> \$121,687 96
Profit and loss balance,	225 47
	<hr/> \$121,913 43

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$229 42	
For current bought,	8,080 42	
distribution,	2,501 23	
management,	2,651 34	
taxes,	511 70	
incidentals,	406 86	
	<hr/>	
	\$14,380 97	
Income from sale of light and power,		\$20,855 29
Balance to profit and loss,	6,474 32	
	<hr/>	<hr/>
	\$20,855 29	\$20,855 29

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$864 96
Balance of manufacturing account,		6,474 32
Jobbing,		176 85
Interest paid,	\$5,520 19	
Other items,	1,770 47	
Balance June 30, 1911,	225 47	
	<hr/>	<hr/>
	\$7,516 13	\$7,516 13

UNITED ELECTRIC LIGHT COMPANY.

(Springfield.)

ASSETS.

Real estate,	\$430,734 93
Steam plant,	524,055 01
Electric plant,	251,440 12
Electric lines,	930,741 61
Transformers,	125,708 73
Meters,	88,778 70
Arc lamps,	31,130 93
Due for electricity,	39,456 98
Fuel on hand,	8,008 06
Carbons on hand,	1,304 90
Incandescent lamps on hand,	20,379 15
Globes on hand,	448 67
Other materials on hand,	23,437 13
Motors and tools on hand,	1,120 38
Horses, wagons, etc.,	3,104 00
Sundry accounts due the company,	2,120 01
Office furniture,	477 35
Cash on hand,	5,551 19
Investments,	275,000 00
Sinking fund,	121,097 39

Total assets, as per books of the company, \$2,884,095 24

LIABILITIES.

Capital stock,	\$1,500,000 00
Bonds issued,	200,000 00
Notes payable,	131,000 00
Unpaid bills,	18,698 67
Deposits,	3,348 51
Sinking fund instalments paid,	121,097 39
Premiums on capital stock,	565,000 00
Depreciation fund,	168,000 00
Amounts due from the company, not included above,	15,000 00

Total liabilities, as per books of the company, \$2,722,144 57
 Profit and loss balance, 161,950 67

\$2,884,095 24

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$158,871 76	
For distribution,	73,249 84	
management,	41,971 77	
taxes,	51,728 43	
incidentals,	8,131 34	
	<u>\$333,953 14</u>	
Income from sale of light and power,		\$589,638 78
Balance to profit and loss,	255,685 64	
	<u>\$589,638 78</u>	<u>\$589,638 78</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$151,411 76
Balance of manufacturing account,		255,685 64
Interest received,		4,793 39
Jobbing,		611 95
Other items of income,		29 28
Interest paid,	\$27,613 72	
Dividends declared,	131,250 00	
Depreciation,	70,924 22	
Depreciation fund,	10,000 00	
Reserved fund,	10,793 39	
Balance June 30, 1911,	161,950 67	
	<u>\$412,532 00</u>	<u>\$412,532 00</u>

UPTON ELECTRIC COMPANY.

MANUFACTURING ACCOUNT TO DECEMBER 31, 1910.

Operating expenses:	Dr.	Cr.
For current bought,	\$502 87	
distribution,	301 29	
management,	308 63	
taxes,	30 00	
incidentals,	41 21	
	<u>\$1,184 00</u>	
Income from sale of light and power,		\$1,268 57
Balance to profit and loss,	84 57	
	<u>\$1,268 57</u>	<u>\$1,268 57</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$341 04
Balance of manufacturing account,		84 57
Jobbing,		98 74
Notes and accounts payable cancelled,		2,500 00
Interest paid,	\$87 50	
Depreciation,	341 04	
Loss on sale of electric plant,	2,595 81	
	<u>\$3,024 35</u>	<u>\$3,024 35</u>

UXBRIDGE AND NORTHBRIDGE ELECTRIC COMPANY.

MANUFACTURING ACCOUNT TO DECEMBER 31, 1910.

	DR.	CR.
Operating expenses:		
At station,	\$16,972 51	
For distribution,	4,392 62	
management,	1,615 81	
taxes,	667 60	
incidentals,	744 23	
	<hr/>	
	\$24,392 77	
Income from sale of light and power,		\$34,880 98
Balance to profit and loss,	10,488 21	
	<hr/>	<hr/>
	\$34,880 98	\$34,880 98

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,	\$43,462 65	
Balance of manufacturing account,		\$10,488 21
Jobbing,		268 69
Notes and accounts payable cancelled,		73,653 75
Interest paid,	3,849 13	
Depreciation,	30,191 10	
Loss on sale of electric plant,	5,837 54	
Other items,	1,070 23	
	<hr/>	<hr/>
	\$84,410 65	\$84,410 65

VINEYARD HAVEN GAS AND ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$1,260 90
Machinery and manufacturing appliances,	2,091 34
Street mains,	4,714 25
Services,	50 34
Meters,	747 65
Due for gas,	235 31
Other materials on hand,	575 00
Stoves, etc., on hand,	9 10
Fixtures,	867 10
Sundry accounts due the company,	4 07
Cash on hand,	788 29
	<hr/>
Total assets, as per books of the company,	\$11,343 35

LIABILITIES.

Capital stock,	\$10,000 00
Unpaid bills,	29 37
Depreciation fund,	642 69
	<hr/>
Total liabilities, as per books of the company,	\$10,672 06
Profit and loss balance,	671 29
	<hr/>
	\$11,343 35

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$2,235 84	
For distribution,	180 45	
management,	128 04	
taxes,	126 33	
incidentals,	24 50	
	<hr/>	
	\$2,695 16	
Income from sale of gas,		\$2,945 53
Balance to profit and loss,	250 37	
	<hr/>	<hr/>
	\$2,945 53	\$2,945 53

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,020 92
Balance of manufacturing account,		250 37
Dividends declared,	\$600 00	
Balance June 30, 1911,	671 29	
	<hr/>	<hr/>
	\$1,271 29	\$1,271 29

VINEYARD LIGHTING COMPANY.

(Oak Bluffs.)

ASSETS.

Real estate (gas),	\$2,759 05
Machinery and manufacturing appliances (gas),	9,474 81
Street mains (gas),	8,378 56
Services (gas),	377 26
Meters (gas),	2,287 30
Due for gas,	785 71
Gas coal on hand,	792 00
Enrichers on hand,	46 68
Purifying materials on hand,	10 00
Other gas materials on hand,	283 32
Real estate (electric),	8,756 07
Steam plant (electric),	22,539 50
Electric plant,	13,018 57
Electric lines,	19,725 79
Transformers,	2,028 14
Meters (electric),	1,129 58
Arc lamps,	747 82
Due for electricity,	2,357 00
Fuel on hand (electric),	728 00
Oil and waste on hand,	12 68
Incandescent lamps on hand,	61 50
Other materials on hand,	121 00
Horses, wagons and automobiles,	139 75
Sundry accounts due the company,	1,373 21
Office furniture,	207 70
Cash on hand,	1,468 32
Wharf,	1,800 00
	<hr/>
Total assets, as per books of the company,	\$101,407 32
Profit and loss balance,	3,503 61
	<hr/>
	\$104,910 93

LIABILITIES.		
Capital stock,		\$25,000 00
Notes payable,		5,500 00
Unpaid bills,		17,656 16
Deposits,		268 00
Unpaid dividends,		281 96
Interest accrued but not due,		187 51
Amounts due from the company, not included above,		56,017 30
Total liabilities, as per books of the company,		<u>\$104,910 93</u>

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses (gas):			
At works,	\$2,499 90		
For distribution,	637 00		
management,	434 23		
taxes,	130 80		
incidentals,	185 38		
		\$3,887 26	
Operating expenses (electric):			
At station,	\$7,245 64		
For distribution,	1,271 72		
management,	892 12		
taxes,	349 20		
incidentals,	442 77		
		10,201 45	
Income from sale of gas,			\$4,713 39
sale of electric light and power,			16,066 34
Balance to profit and loss:			
Gas,		\$26 13	
Electric,		5,864 89	
		<u>\$20,779 73</u>	<u>\$20,779 73</u>

PROFIT AND LOSS ACCOUNT.		Dr.	Cr.
Balance June 30, 1910,		\$5,786 48	
Balance of gas manufacturing account,			\$826 13
Balance of electric manufacturing account,			5,864 89
Interest paid,		3,747 04	
Other items,		661 11	
Balance June 30, 1911,			3,503 61
		<u>\$10,194 63</u>	<u>\$10,194 63</u>

WAITE AND SMITH.

(South Dartmouth.)

MANUFACTURING ACCOUNT.		Dr.	Cr.
Operating expenses:			
At works,	\$281 00		
For distribution,	27 50		
taxes,	8 94		
		\$317 44	
Income from sale of gas,			\$472 12
Balance to profit and loss,		154 68	
		<u>\$472 12</u>	<u>\$472 12</u>

WARE.

(See OTIS COMPANY.)

WARE ELECTRIC COMPANY.

ASSETS.

Real estate,	\$7,450 00
Steam plant,	19,198 85
Electric plant,	18,127 47
Electric lines,	15,970 53
Transformers,	2,695 57
Meters,	1,237 25
Arc lamps,	3,926 00
Fuel on hand,	217 35
Carbons on hand,	25 11
Oil and waste on hand,	37 13
Incandescent lamps on hand,	432 11
Globes on hand,	28 94
Other materials on hand,	797 21
Fixtures, tools, etc., on hand,	297 79
Cash on hand,	2,264 42
Notes receivable,	272 04

Total assets, as per books of the company, \$72,977 77

LIABILITIES.

Capital stock,	\$40,000 00
Notes payable,	25,500 00
Unpaid bills,	332 53
Interest accrued but not due,	196 50

Total liabilities, as per books of the company, \$66,029 03

Profit and loss balance, 6,948 74

\$72,977 77

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$9,774 32	
For distribution,	1,606 04	
management,	642 03	
taxes,	682 48	
incidentals,	132 41	
	<u>\$12,837 28</u>	
Income from sale of light and power,		\$19,695 04
Balance to profit and loss,	6,857 76	
	<u>\$19,695 04</u>	<u>\$19,695 04</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$4,380 61
Balance of manufacturing account,		6,857 76
Other items of income,		85 34

	Dr.	Cr.
Interest paid,	\$1,581 00	
Dividends declared,	2,400 00	
Other items,	393 97	
Balance June 30, 1911,	6,948 74	
	<hr/>	<hr/>
	\$11,323 71	\$11,323 71

WEBSTER AND SOUTHBRIDGE GAS AND ELECTRIC COMPANY.

Assets.		
Real estate (gas),		\$21,107 09
Machinery and manufacturing appliances (gas),		35,600 00
Street mains (gas),		70,300 00
Meters (gas),		17,500 00
Due for gas,		6,220 47
Gas coal on hand,		634 70
Enrichers on hand,		275 00
Other gas materials on hand,		561 55
Stoves on hand,		1,085 30
Gas fixtures, tools, etc., on hand,		849 96
Real estate (electric),		33,858 64
Steam plant (electric),		61,000 00
Electric plant,		41,000 00
Electric lines,		66,000 00
Transformers,		13,300 00
Meters (electric),		11,600 00
Arc lamps,		4,900 00
Due for electricity,		12,881 16
Fuel on hand (electric),		1,449 30
Carbons on hand,		64 79
Oil and waste on hand,		60 76
Incandescent lamps on hand,		653 67
Globes on hand,		6 56
Other electric materials on hand,		1,153 70
Motors on hand,		3,004 01
Electric fixtures, tools, etc., on hand,		1,334 95
Horses, wagons, etc.,		4,140 93
Sundry accounts due the company,		1,062 10
Office furniture,		682 36
Cash on hand,		1,999 17
Investments,		245 87
		<hr/>
Total assets, as per books of the company,		\$414,532 04

LIABILITIES.		
Capital stock,		\$170,000 00
Bonds issued,		60 000 00
Notes payable,		116,200 00
Unpaid bills,		14,626 92
Interest due but not paid,		875 00
Interest accrued but not due,		312 50
		<hr/>

Total liabilities, as per books of the company,	\$362,014 42
Profit and loss balance,	52,517 62
	<hr/>

\$414,532 04

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
At works,	\$14,747 66	
For distribution,	1,923 98	
management,	3,723 76	
taxes,	1,310 77	
incidentals,	1,093 17	
	<hr/>	
	\$22,799 34	
Operating expenses (electric):		
At station,	\$21,455 51	
For distribution,	7,674 03	
management,	7,198 86	
taxes,	2,621 56	
incidentals,	2,186 34	
	<hr/>	
	41,136 30	
Income from sale of gas,		\$42,774 15
sale of electric light and power,		78,201 10
other sources (electric),		120 00
Balance to profit and loss:		
Gas,	19,974 81	
Electric,	37,184 80	
	<hr/>	
	\$121,095 25	\$121,095 25

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$27,916 25
Balance of gas manufacturing account,		19,974 81
Balance of electric manufacturing account,		37,184 80
Rents,		155 79
Interest paid,	\$8,116 17	
Dividends declared,	10,200 00	
Depreciation,	14,397 86	
Balance June 30, 1911,	52,517 62	
	<hr/>	
	\$85,231 65	\$85,231 65

WESTBOROUGH GAS AND ELECTRIC COMPANY.

ASSETS.

Real estate,	\$5,517 68
Steam plant,	7,922 28
Electric plant,	15,915 92
Electric lines,	22,556 99
Transformers,	7,366 71
Meters,	6,624 98
Arc lamps,	648 00
Motors on hand,	430 71
Sundry accounts due the company,	3,249 53
Office furniture,	280 80
Investments,	1,079 40
	<hr/>
Total assets, as per books of the company,	\$71,543 00

LIABILITIES.		
Capital stock,		\$36,500 00
Bonds issued,		10,000 00
Notes payable,		8,000 00
		<hr/>
Total liabilities, as per books of the company,		\$54,500 00
Profit and loss balance,		17,043 00
		<hr/>
		\$71,543 00

MANUFACTURING ACCOUNT TO DECEMBER 1, 1910.

Operating expenses:	Dr.	Cr.
At station,	\$143 78	
For current bought,	1,817 16	
distribution,	1,408 78	
management,	819 55	
taxes,	414 55	
incidentals,	175 98	
	<hr/>	
	\$4,779 80	
Income from sale of light and power,		\$5,850 43
other sources,		120 40
Balance to profit and loss,	1,191 03	
	<hr/>	<hr/>
	\$5,970 83	\$5,970 83

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$19,367 57
Balance of manufacturing account,		1,191 03
Rents,		60 00
Other items of income,		2,737 50
Interest paid,	\$543 49	
Dividends declared,	3,362 50	
Other items,	2,407 11	
Balance June 30, 1911,	17,043 00	
	<hr/>	<hr/>
	\$23,356 10	\$23,356 10

WESTON ELECTRIC LIGHT COMPANY.

ASSETS.		
Steam plant,		\$2,000 00
Electric plant,		20,350 17
Electric lines,		37,594 44
Transformers,		7,547 73
Meters,		4,573 82
Due for electricity,		4,140 04
Horses, wagons, etc.,		1,948 56
Sundry accounts due the company,		2,212 06
Cash on hand,		1,270 27
		<hr/>
Total assets, as per books of the company,		\$81,637 09

LIABILITIES.

Capital stock,	\$30,000 00
Notes payable,	22,700 00
Depreciation fund,	5,877 00
Total liabilities, as per books of the company,	\$58,577 00
Profit and loss balance,	23,060 09
	<u>\$81,637 09</u>

MANUFACTURING ACCOUNT.

Operating expenses:	DR.	CR.
At station,	\$9,218 76	
For distribution,	4,370 46	
management,	1,780 00	
taxes,	835 20	
incidentals,	649 67	
	<u>\$16,854 09</u>	
Income from sale of light and power,		\$22,584 10
Balance to profit and loss,	5,730 01	
	<u>\$22,584 10</u>	<u>\$22,584 10</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$27,205 09
Balance of manufacturing account,		5,730 01
Interest paid,	\$880 01	
Dividends declared,	3,000 00	
Depreciation fund,	3,495 00	
Replacements,	2,500 00	
Balance June 30, 1911,	23,060 09	
	<u>\$32,935 10</u>	<u>\$32,935 10</u>

WEYMOUTH LIGHT AND POWER COMPANY.

ASSETS.

Real estate,	\$26,607 87
Steam plant,	58,741 50
Electric plant,	55,871 36
Electric lines,	123,707 16
Transformers,	7,255 46
Meters,	11,371 73
Arc lamps,	3,222 94
Due for electricity,	7,715 65
Fuel on hand,	500 80
Carbons on hand,	25 00
Oil and waste on hand,	45 15
Incandescent lamps on hand,	387 90
Globes on hand,	25 94
Other materials on hand,	2,049 69
Motors on hand,	6,166 11
Fixtures, tools, etc., on hand,	5,068 51
Horses, wagons, etc.,	1,970 00
Sundry accounts due the company,	355 72
Office furniture,	596 46
Cash on hand,	2,777 70
Total assets, as per books of the company,	<u>\$314,462 65</u>

LIABILITIES.

Capital stock,	\$50,000 00
Notes payable,	218,500 00
Unpaid bills,	18,369 31
Interest accrued but not due,	559 04
Amounts due from the company, not included above,	600 00

Total liabilities, as per books of the company,	\$288,028 35
Profit and loss balance,	26,434 30

\$314,462 65

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At station,	\$27,591 51	
For distribution,	9,872 74	
management,	3,188 53	
taxes,	1,449 61	
incidentals,	1,536 10	
	<hr/>	
	\$43,588 49	
Income from sale of light and power,		\$59,336 01
other sources,		853 90
Balance to profit and loss,	16,601 42	
	<hr/>	<hr/>
	\$60,189 91	\$60,189 91

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$23,777 54
Balance of manufacturing account,		16,601 42
Interest received,		332 66
Jobbing,		576 29
Interest paid,	\$9,753 50	
Dividends declared,	2,000 00	
Other items,	3,100 11	
Balance June 30, 1911,	26,434 30	
	<hr/>	<hr/>
	\$41,287 91	\$41,287 91

WILLIAMSBURG.

(See MILL RIVER ELECTRIC LIGHT COMPANY.)

WILLIAMSTOWN GAS COMPANY.

ASSETS.

Real estate (gas),	\$5,494 17
Machinery and manufacturing appliances (gas),	3,965 00
Street mains (gas),	21,114 99
Services (gas),	5,404 93
Meters (gas),	2,900 74
Due for gas,	885 09
Gas fixtures, tools, etc., on hand,	692 31
Real estate (electric),	1,000 00

Electric lines,	\$16,462 85
Transformers,	4,321 21
Meters (electric),	5,133 59
Arc lamps,	840 73
Due for electricity,	1,868 69
Incandescent lamps on hand,	156 16
Globes on hand,	6 50
Other electric materials on hand,	163 88
Electric fixtures, tools, etc., on hand,	12 58
Horses, wagons, etc.,	200 00
Sundry accounts due the company,	1,040 55
Office furniture,	396 56
Cash on hand,	112 94

Total assets, as per books of the company, \$72,173 47

LIABILITIES.

Capital stock,	\$40,000 00
Notes payable,	13,500 00
Unpaid bills,	3,604 46
Deposits,	226 36
Unpaid dividends,	1,200 00
Interest accrued but not due,	382 50
Amounts due from the company, not included above,	444 59

Total liabilities, as per books of the company, \$59,357 91

Profit and loss balance, 12,815 56

\$72,173 47

MANUFACTURING ACCOUNT.

Operating expenses (gas):	Dr.	Cr.
For gas bought, \$4,587 18		
distribution, 702 41		
management, 2,976 11		
taxes, 617 82		
incidentals, 110 99		
	\$8,994 51	
Operating expenses (electric):		
For current bought, \$5,034 79		
distribution, 2,407 50		
management, 2,976 09		
taxes, 354 82		
incidentals, 147 91		
	10,921 11	
Income from sale of gas,		\$8,731 61
sale of electric light and power,		17,052 45
Balance to profit and loss:		
Gas,		262 90
Electric, 6,131 34		
	\$26,046 96	\$26,046 96

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$13,284 16
Balance of gas manufacturing account,	\$262 90	
Balance of electric manufacturing account,		6,131 34

	DR.	CR.
Rents,		\$150 00
Interest paid,	\$750 64	
Dividends declared,	4,800 00	
Other items,	936 40	
Balance June 30, 1911,	12,815 56	
	<hr/>	<hr/>
	\$19,565 50	\$19,565 50

WINCHENDON ELECTRIC LIGHT AND POWER COMPANY.

ASSETS.		
Real estate,		\$100,174 32
Electric plant,		9,917 46
Electric lines,		19,304 34
Transformers,		3,000 00
Meters,		5,211 12
Arc lamps,		957 40
Due for electricity,		3,156 59
Carbons on hand,		13 90
Oil and waste on hand,		11 10
Incandescent lamps on hand,		196 03
Globes on hand,		5 10
Other materials on hand,		731 80
Motors on hand,		145 00
Fixtures, tools, etc., on hand,		344 64
Horses, wagons, etc.,		321 38
Sundry accounts due the company,		2,190 74
Office furniture,		429 40
Cash on hand,		688 89
Insurance,		236 46
		<hr/>
Total assets, as per books of the company,		\$147,035 67

LIABILITIES.		
Capital stock,		\$12,000 00
Bonds issued,		7,000 00
Notes payable,		104,400 00
Unpaid bills,		1,000 97
Interest accrued but not due,		1,265 15
Amounts due from the company, not included above,		379 53
		<hr/>
Total liabilities, as per books of the company,		\$126,045 65
Profit and loss balance,		20,990 02
		<hr/>
		\$147,035 67

MANUFACTURING ACCOUNT.		DR.	CR.
Operating expenses:			
At station,	\$1,963 57		
For distribution,	1,757 76		
management,	3,691 57		
taxes,	552 00		
incidentals,	615 11		
	<hr/>		
		\$8,580 01	
Income from sale of light and power,			\$15,260 57
Balance to profit and loss,		6,680 56	
		<hr/>	<hr/>
		\$15,260 57	\$15,260 57

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$19,324 75
Balance of manufacturing account,		6,680 56
Jobbing,		757 05
Interest paid,	\$5,705 13	
Other items,	67 21	
Balance June 30, 1911,	20,990 02	
	<hr/>	<hr/>
	\$26,762 36	\$26,762 36

WOBURN GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$18,079 76
Machinery and manufacturing appliances,	28,469 50
Street mains and services,	26,258 56
Meters,	3,397 18
Due for gas,	2,726 22
Gas coal on hand,	1,897 89
Coke on hand,	302 00
Tar on hand,	459 90
Enrichers on hand,	561 67
Other materials, stoves and gas fixtures on hand,	500 00
Office furniture,	342 90
Cash on hand,	2,140 47
Investments,	9,000 00
	<hr/>
Total assets, as per books of the company,	\$94,136 05

LIABILITIES.

Capital stock,	\$45,100 00
Deposits,	193 00
Reserved fund,	3,000 00
	<hr/>
Total liabilities, as per books of the company,	\$48,293 00
Profit and loss balance,	45,843 05
	<hr/>
	\$94,136 05

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
At works,	\$13,611 35	
For distribution,	1,696 71	
management,	3,352 96	
taxes,	1,488 91	
incidentals,	944 03	
	<hr/>	
	\$21,093 96	
Income from sale of gas,		\$21,401 00
residuals,		3,235 58
other sources,		88 75
Balance to profit and loss,	3,631 37	
	<hr/>	<hr/>
	\$24,725 33	\$24,725 33

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$45,858 97
Balance of manufacturing account,		3,631 37
Interest received,		486 60
Jobbing,		376 11
Dividends declared,	\$4,510 00	
Balance June 30, 1911,	45,843 05	
	<hr/>	<hr/>
	\$50,353 05	\$50,353 05

WORCESTER COUNTY GAS COMPANY.

ASSETS.

Real estate,	\$23,098 49
Machinery and manufacturing appliances,	42,379 20
Street mains,	184,327 43
Services,	41,568 93
Meters,	10,952 66
Due for gas,	3,406 59
Gas coal on hand,	336 79
Enrichers on hand,	228 31
Purifying materials on hand,	13 84
Fixtures, tools, etc., on hand,	8,391 81
Horses, wagons, etc.,	3,056 18
Sundry accounts due the company,	1,386 43
Office furniture,	470 92
Cash on hand,	756 40

Total assets, as per books of the company,	\$320,373 98
Profit and loss balance,	8,601 58
	<hr/>
	\$328,975 56

LIABILITIES.

Capital stock,	\$85,000 00
Notes payable,	211,900 00
Unpaid bills,	1,716 19
Deposits,	25 00
Interest accrued but not due,	4,902 28
Amounts due from the company, not included above,	25,432 09

Total liabilities, as per books of the company,	\$328,975 56
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At works,	\$3,336 99	
For gas bought,	12,107 12	
distribution,	6,039 32	
management,	4,852 28	
taxes,	1,069 86	
incidentals,	844 64	
	<hr/>	
	\$28,250 21	
Income from sale of gas,		\$26,910 82
Balance to profit and loss,		1,339 39
	<hr/>	<hr/>
	\$28,250 21	\$28,250 21

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$45,009 04	
Balance of manufacturing account,	1,339 39	
Rents,		\$701 96
Jobbing,		1,172 70
Other items of income,		47,000 00
Interest paid,	10,460 74	
Other items,	667 07	
Balance June 30, 1911,		8,601 58
	<u>\$57,476 24</u>	<u>\$57,476 24</u>

WORCESTER ELECTRIC LIGHT COMPANY.

ASSETS.

Real estate,	\$316,447 71
Steam plant,	310,415 98
Electric plant,	160,370 13
Electric lines,	1,165,624 23
Transformers,	66,942 26
Meters,	37,941 12
Arc lamps,	22,131 00
Due for electricity,	46,675 13
Fuel on hand,	1,998 80
Carbons on hand,	783 44
Oil and waste on hand,	145 61
Incandescent lamps on hand,	14,859 53
Globes on hand,	625 44
Other materials on hand,	25,585 11
Fixtures, tools, etc., on hand,	2,346 82
Horses, wagons, etc.,	9,258 29
Sundry accounts due the company,	5,425 19
Office furniture,	3,507 93
Cash on hand,	8,210 65
Leicester plant,	19,539 31
Total assets, as per books of the company,	<u>\$2,218,833 68</u>

LIABILITIES.

Capital stock,	\$1,000,000 00
Notes payable,	410,000 00
Unpaid bills,	10,498 34
Deposits,	2,320 00
Premium on capital stock,	490,000 00
Total liabilities, as per books of the company,	<u>\$1,912,818 34</u>
Profit and loss balance,	306,015 34
	<u>\$2,218,833 68</u>

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
At station,	\$108,700 20	
For current bought,	439 60	
distribution,	49,139 99	
management,	33,139 68	
taxes,	34,993 00	
incidentals,	9,748 86	
	<u>\$236,161 33</u>	

	DR.	CR.
Income from sale of light and power,		\$453,734 34
other sources,		3,238 87
Balance to profit and loss,	\$220,811 88	
	<u>\$456,973 21</u>	<u>\$456,973 21</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$378,294 10
Balance of manufacturing account,		220,811 88
Interest received,		740 38
Rents,		871 90
Interest paid,	\$17,265 29	
Dividends declared,	90,000 00	
Depreciation,	187,437 63	
Balance June 30, 1911,	306,015 34	
	<u>\$600,718 26</u>	<u>\$600,718 26</u>

WORCESTER GAS LIGHT COMPANY.

ASSETS.

Real estate,	\$895,136 34
Machinery and manufacturing appliances,	969,391 83
Street mains and services,	150,953 76
Meters,	49,355 20
Due for gas,	53,780 77
Gas coal on hand,	53,402 44
Coke on hand,	10,405 50
Tar on hand,	3,021 00
Ammoniacal liquor on hand,	1,409 62
Enrichers on hand,	5,436 37
Purifying materials on hand,	171 60
Other materials on hand,	20,411 92
Stoves, fixtures, tools, etc., on hand,	23,318 06
Cash on hand,	46,452 92
Total assets, as per books of the company,	<u>\$2,282,647 33</u>

LIABILITIES.

Capital stock,	\$1,000,000 00
Notes payable,	427,500 00
Deposits,	58,106 93
Unpaid dividends,	20,043 00
Premium on capital stock,	450,000 00
Total liabilities, as per books of the company,	<u>\$1,955,649 93</u>
Profit and loss balance,	326,997 40
	<u>\$2,282,647 33</u>

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses:		
At works,	\$301,837 68	
For distribution,	47,122 22	
management,	28,415 59	
taxes,	42,990 46	
incidentals,	7,906 13	
	<u>\$428,272 08</u>	

	DR.	CR.
Income from sale of gas,		\$584,868 51
residuals,		42,755 06
other sources,		639 75
Balance to profit and loss,	\$199,991 24	
	<u>\$628,263 32</u>	<u>\$628,263 32</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$352,395 84
Balance of manufacturing account,		199,991 24
Interest received,		510 58
Rents,		638 04
Other items of income,		5 70
Interest paid,	\$15,022 00	
Dividends declared,	120,000 00	
Depreciation,	91,172 00	
Other items,	350 00	
Balance June 30, 1911,	326,997 40	
	<u>\$553,541 40</u>	<u>\$553,541 40</u>

WORCESTER SUBURBAN ELECTRIC COMPANY.

Assets.

Real estate,	\$30,726 36
Steam plant,	47,965 36
Electric plant,	36,215 72
Electric lines,	177,125 17
Transformers,	24,217 75
Meters,	17,520 90
Arc lamps,	1 00
Inside wiring,	246 67
Due for electricity,	9,271 16
Fuel on hand,	4,803 17
Incandescent lamps on hand,	1,410 01
Other materials on hand,	9,434 69
Fixtures, tools, etc., on hand,	1,262 56
Horses, wagons, etc.,	2,300 00
Sundry accounts due the company,	281 29
Office furniture,	1,855 97
Cash on hand,	482 48
Insurance and interest prepaid,	649 84
Consolidation and development expenses,	7,305 76
Total assets, as per books of the company,	<u>\$373,075 86</u>

LIABILITIES.

Capital stock,	\$275,000 00
Notes payable,	70,000 00
Unpaid bills,	9,926 67
Deposits,	288 00
Reserved fund,	5,547 00
Amounts due from the company, not included above,	517 60
Total liabilities, as per books of the company,	<u>\$361,279 27</u>
Profit and loss balance,	11,796 59
	<u>\$373,075 86</u>

MANUFACTURING ACCOUNT.¹

Operating expenses:	Dr.	Cr.
At station,	\$15,788 67	
For current bought,	2,744 01	
distribution,	10,269 72	
management,	5,506 75	
taxes,	955 88	
incidentals,	1,107 73	
	<hr/>	
	\$36,372 76	
Income from sale of light and power,		\$49,039 10
other sources,		128 80
Balance to profit and loss,	12,795 14	
	<hr/>	<hr/>
	\$49,167 90	\$49,167 90

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$1,276 09	
Balance of manufacturing account,		\$12,795 14
Surplus from consolidated companies,		7,004 85
Jobbing,		87 73
Notes cancelled,		30,000 00
Other items of income,		6,395 00
Interest paid,	1,005 34	
Depreciation,	35,118 91	
Reserve fund,	5,647 00	
Other items,	1,438 79	
Balance June 30, 1911,	11,796 59	
	<hr/>	<hr/>
	\$56,282 72	\$56,282 72

¹ As the Worcester Suburban Electric Company became, on Jan. 1, 1911, a consolidation of the Uxbridge and Northbridge, Douglas, Upton, Millbury and Grafton companies, it may be noted that this account includes the business of all these companies for the second six months of the fiscal year but of only the Grafton company for the first six months.

APPENDIX C. — MUNICIPALITIES.

BALANCE SHEETS, MANUFACTURING AND PROFIT AND LOSS ACCOUNTS TO JUNE 30, 1911.

In these balance sheets the various plant assets represent the actual expenditures for these items, less depreciation charges; and the item of "cash or town treasury" includes the cash in the hands of the manager and the available unexpended balance of all appropriations except for depreciation fund, — that is to say, all appropriations, when they become subject to drafts by the manager, are treated as cash. Under the title of "appropriations and overdrafts" are included all those amounts which have been raised by direct taxation upon the estates in the town for new construction since the inception of the enterprise. When, as has frequently been done, the appropriation has by its terms been applicable, either to construction or maintenance, at the option of the management, only the amount actually expended for new construction and charged to the construction accounts has been treated as an appropriation for construction. While such appropriations are not strictly liabilities, in the ordinary acceptance of the term, they belong in any proper system of accounting on the same side of the ledger as bonds and notes outstanding and in the returns are for convenience grouped with them under the same designation.

[For other information about these plants see under title "MUNICIPAL OWNERSHIP" in the body of the report, and Appendix F.]

ASHBURNHAM.

ASSETS.	
Real estate,	\$263 48
Electric plant,	1,296 50
Electric lines,	7,462 08
Transformers,	948 43
Meters,	1,489 13
Incandescent street lamps,	618 42
Due for electricity,	605 55
Other materials on hand,	487 63
Tools and appliances,	204 13
Sundry accounts receivable,	30 00
Office furniture,	39 36
Cash (or town treasury),	692 39
Depreciation fund,	160 31

Total assets, as per books of the plant,	\$14,297 41
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LIABILITIES.	
Appropriations for construction,	\$1,100 00
note payments,	2,000 00
Notes payable,	9,000 00
Unpaid bills,	171 30
Interest accrued but not due,	51 88

Total liabilities, as per books of the plant,	\$12,323 18
Profit and loss balance,	1,974 23

\$14,297 41

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$3,923 27	
Income from sale of light and power,		\$4,425 06
other sources,		120 00
Balance to profit and loss,	621 79	
	<hr/>	<hr/>
	\$4,545 06	\$4,545 06

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$347 64
Balance of manufacturing account,		621 79
Appropriation for operations,		187 39
interest,		400 00
Account transferred,		1,198 70
Other items of income,		45
Interest paid,	\$394 17	
Depreciation,	387 57	
Balance June 30, 1911,	1,974 23	
	<hr/>	<hr/>
	\$2,755 97	\$2,755 97

BELMONT.

ASSETS.

Electric lines,	\$21,873 87
Transformers,	2,763 46
Meters,	8,457 21
Arc lamps,	883 46
Incandescent street lamps,	2,504 35
Due for electricity,	2,164 96
Globes on hand,	8 00
Other materials on hand,	85 00
Tools and appliances,	580 00
Horses, wagons, etc.,	425 00
Sundry accounts receivable,	427 78
Cash (or town treasury),	2,852 85
Depreciation fund,	14 98
Insurance,	188 83
Sinking funds,	3,640 00
	<hr/>
Total assets, as per books of the plant,	\$46,864 75
Profit and loss balance,	5,999 56

\$52,864 31

LIABILITIES.

Appropriations for construction,	\$29,872 00
Overdrafts for construction,	2,805 64
Appropriations for note payments,	1,000 00
sinking funds,	3,640 00
Bonds outstanding,	14,000 00
Notes payable,	1,500 00
Interest accrued but not due,	46 67

Total liabilities, as per books of the plant, \$52,864 31

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$17,122 01	
Income from sale of light and power,		\$13,644 70
Balance to profit and loss,		3,477 31
	<hr/>	<hr/>
	\$17,122 01	\$17,122 01

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$3,075 16	
Balance of manufacturing account,	3,477 31	
Appropriation for operations,		\$1,410 71
interest,		630 00
depreciation,		1,453 00
Interest paid,	630 00	
Depreciation,	1,453 00	
Overdrawn for construction,	857 80	
Balance June 30, 1911,		5,999 56
	<hr/>	<hr/>
	\$9,493 27	\$9,493 27

BRAINTREE.

ASSETS.

Real estate,	\$10,686 86
Steam plant,	12,882 15
Electric plant,	12,883 02
Electric lines,	30,400 04
Transformers,	5,197 05
Meters,	12,651 11
Arc lamps,	240 75
Incandescent street lamps,	2,415 91
Due for electricity,	6,413 78
Fuel on hand,	183 30
Carbons on hand,	30 00
Oil and waste on hand,	145 12
Incandescent lamps on hand,	202 15
Globes on hand,	3 50
Other materials on hand,	3,298 67
Tools and appliances,	1,058 50
Horses, wagons, etc.,	1,530 00
Sundry accounts receivable,	94 94
Office furniture,	128 00
Depreciation fund,	11,588 38
Sinking funds,	10,819 21
	<hr/>
Total assets, as per books of the plant,	\$122,852 44
Profit and loss balance,	31,891 68
	<hr/>
	\$154,744 12

LIABILITIES.

Appropriations for construction,	\$14,201 81
Overdrafts for construction,	50,252 59
Appropriations for note payments,	61,500 00
sinking funds,	7,740 00

Bonds outstanding,	\$16,500 00
Notes payable,	2,500 00
Interest due but not paid,	159 44
Interest accrued but not due,	182 88
Cash overdrawn,	1,707 40

Total liabilities, as per books of the plant,	<u>\$154,744 12</u>
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$20,661 50	
Income from sale of light and power,		\$24,492 72
other sources,		749 22
Balance to profit and loss,	4,580 44	
	<u>\$25,241 94</u>	<u>\$25,241 94</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$35,280 84	
Balance of manufacturing account,		\$4,580 44
Interest received from depreciation fund,		123 46
sinking funds,		377 62
Appropriations for operations,		710 40
interest,		660 00
depreciation,		4,539 11
Interest paid,	760 00	
Depreciation,	6,541 87	
Other items,	300 00	
Balance June 30, 1911,		31,891 68
	<u>\$42,882 71</u>	<u>\$42,882 71</u>

CHICOPEE.

ASSETS.

Real estate,	\$17,992 95
Steam plant,	31,216 50
Electric plant,	30,486 11
Electric lines,	35,915 15
Transformers,	10,359 30
Meters,	12,809 60
Arc lamps,	10,256 32
Nernst lamps,	353 20
Due for electricity,	2,066 38
Fuel on hand,	2,472 00
Carbons on hand,	115 36
Oil and waste on hand,	29 26
Incandescent lamps on hand,	502 72
Globes on hand,	103 20
Other materials on hand,	1,104 76
Gas oil on hand,	90 00
Tools and appliances,	593 80
Horses, wagons, etc.,	1,345 00
Sundry accounts receivable,	584 95

Office furniture,	\$89 00
Cash (or city treasury),	14,434 18
Depreciation fund,	6,203 47

Total assets, as per books of the plant,	\$179,123 21
Profit and loss balance,	31,672 27
	<hr/>
	\$210,795 48

LIABILITIES.

Appropriations for construction,	\$46,182 24
bond payments,	60,000 00
note payments,	13,000 00
Bonds outstanding,	71,000 00
Notes payable,	16,000 00
Unpaid bills,	4,264 91
Interest accrued but not due,	348 33

Total liabilities, as per books of the plant,	\$210,795 48
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$43,488 67	
Income from sale of light and power,		\$35,427 92
other sources,		2,581 81
Balance to profit and loss,		5,478 94
	<hr/>	<hr/>
	\$43,488 67	\$43,488 67

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$18,285 34	
Balance of manufacturing account,	5,478 94	
Appropriations for operations,		\$6,304 59
interest,		3,477 50
depreciation,		6,756 45
Appraisal of land,		5,000 00
Interest paid,	3,617 50	
Depreciation,	6,756 45	
Operation fund returned to city treasury, to Nov.		
30, 1910,	17,498 11	
Other items,	1,574 47	
Balance June 30, 1911,		31,672 27
	<hr/>	<hr/>
	\$53,210 81	\$53,210 81

CONCORD.

ASSETS.

Real estate,	\$6,176 19
Steam plant,	23,331 91
Electric plant,	12,456 90
Electric lines,	38,966 27
Transformers,	3,578 48
Meters,	7,780 56
Arc lamps,	116 50
Incandescent street lamps,	3,353 52
Fire alarm construction,	1,055 48

Due for electricity,	\$6,589 74
Fuel on hand,	1,075 00
Oil and waste on hand,	105 20
Incandescent lamps on hand,	873 60
Other materials on hand,	767 30
Tools and appliances,	2,052 50
Horses, wagons, etc.,	552 50
Sundry accounts receivable,	3,362 28
Office furniture,	333 55
Cash (or town treasury),	3,276 32
Insurance,	33 33
Sinking funds,	23,219 47

Total assets, as per books of the plant,	\$139,056 60
Profit and loss balance,	33,156 30

\$172,212 90

LIABILITIES.

Appropriations for construction,	\$12,914 29
Overdraft for construction,	48 72
Appropriation for sinking funds,	21,561 80
Bonds outstanding,	116,000 00
Notes payable,	18,000 00
Unpaid bills,	1,851 43
Deposits,	30 00
Interest accrued but not due,	1,806 66

Total liabilities, as per books of the plant,	\$172,212 90
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$28,843 70	
Income from sale of light and power,		\$26,647 02
other sources,		2,201 57
Balance to profit and loss,	4 89	
	<hr/> \$28,848 59	<hr/> \$28,848 59

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$25,368 08	
Balance of manufacturing account,		\$4 89
Interest received,		24 44
Income from sinking funds,		769 39
Bond premiums,		531 80
Jobbing,		203 08
Appropriations for operations,		5,731 26
Other items of income,		15 72
Interest paid,	5,068 35	
Fire alarm expenses,	387 67	
depreciation,	55 55	
Depreciation,	6,303 16	
Sinking fund appropriations,	3,211 80	
Other items,	42 27	
Balance June 30, 1911,		33,156 30
	<hr/> \$40,436 88	<hr/> \$40,436 88

DANVERS.

ASSETS.

Real estate,	\$11,393 76
Steam plant,	37,809 31
Electric plant,	16,033 81
Electric lines,	26,792 88
Transformers,	4,994 02
Meters,	9,757 16
Arc lamps,	5,253 77
Due for electricity,	2,222 50
Fuel on hand,	923 57
Carbons on hand,	81 10
Oil and waste on hand,	104 41
Incandescent lamps on hand,	371 45
Globes on hand,	77 00
Other materials on hand,	6,457 44
Tools and appliances,	3,452 45
Sundry accounts receivable,	1,082 44
Office furniture,	317 00
Cash (or town treasury),	3,619 75
Depreciation fund,	286 17
Insurance,	281 47
Sinking funds,	25,044 66

Total assets, as per books of the plant, \$156,356 12

LIABILITIES.

Appropriations for construction,	\$24,300 61
extraordinary repairs,	1,330 10
bond payments,	15,000 00
sinking funds,	27,377 04
Bonds outstanding,	69,400 00
Notes payable,	12,500 00
Interest accrued but not due,	434 00

Total liabilities, as per books of the plant, \$150,341 75

Profit and loss balance, 6,014 37

\$156,356 12

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$24,038 47	
Income from sale of light and power,		\$31,208 19
Balance to profit and loss,	7,169 72	
	\$31,208 19	\$31,208 19

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$1,152 30	
Balance of manufacturing account,		\$7,169 72
Income from sinking funds,		571 56
Appropriation for operations,		2,651 83
depreciation,		3,884 62
fire alarm,		450 00

	Dr.	Cr.
Interest paid,	\$3,276 00	
Fire alarm expenses,	400 44	
Depreciation,	3,884 62	
Balance June 30, 1911,	6,014 37	
	<hr/>	<hr/>
	\$14,727 73	\$14,727 73

GROTON.

ASSETS.

Real estate,	\$2,004 53
Electric plant,	1,322 80
Electric lines,	12,963 48
Transformers,	691 03
Meters,	833 46
Incandescent street lamps,	1,779 73
Due for electricity,	115 80
Incandescent lamps on hand,	87 38
Tools and appliances,	113 76
Office furniture,	112 80
Cash (or town treasury),	3,863 27
Depreciation fund,	1,141 28
	<hr/>
Total assets, as per books of the plant,	\$25,029 32

LIABILITIES.

Appropriations for construction,	\$2,972 89
note payments,	5,000 00
Notes payable,	16,360 00
Unpaid bills,	16 67
Interest accrued but not due,	127 61
	<hr/>
Total liabilities, as per books of the plant,	\$24,477 15
Profit and loss balance,	552 17
	<hr/>
	\$25,029 32

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$2,511 65	
Income from sale of light and power,		\$1,203 15
Balance to profit and loss,		1,308 50
	<hr/>	<hr/>
	\$2,511 65	\$2,511 65

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$649 70
Balance of manufacturing account,	\$1,308 50	
Appropriation for operations,		1,319 11
interest,		585 55
depreciation,		605 72
Other items of income,		18 22
Interest paid,	661 70	
Depreciation,	605 72	
Returned to town treasury, unavailable April 1, 1911,	50 23	
Balance June 30, 1911,	552 15	
	<hr/>	<hr/>
	\$3,178 30	\$3,178 30

GROVELAND.

ASSETS.

Real estate,	\$185 00
Electric plant,	1,157 64
Electric lines,	9,774 55
Transformers,	1,423 29
Meters,	1,197 15
Incandescent street lamps,	877 67
Due for electricity,	184 33
Incandescent lamps on hand,	18 00
Other materials on hand,	66 82
Tools and appliances,	81 44
Cash (or town treasury),	1,388 28
Depreciation fund,	4 84

Total assets, as per books of the plant,	\$16,359 01
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LIABILITIES.

Appropriations for construction,	\$100 00
note payments,	2,000 00
Notes payable,	13,500 00
Interest accrued but not due,	151 87

Total liabilities, as per books of the plant,	\$15,751 87
Profit and loss balance,	607 14

\$10,359 01

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses,	\$3,666 45	
Income from sale of light and power,		\$1,915 04
Balance to profit and loss,		1,751 41
	<hr/>	<hr/>
	\$3,666 45	\$3,666 45

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$870 08
Balance of manufacturing account,	\$1,751 41	
Appropriation for operations,		1,475 45
interest,		607 50
depreciation,		450 00
Jobbing,		18 64
Interest paid,	613 12	
Depreciation,	450 00	
Balance June 30, 1911,	607 14	
	<hr/>	<hr/>
	\$3,421 67	\$3,421 67

HINGHAM.

ASSETS.

Electric lines,	\$25,002 48
Transformers,	2,638 93
Meters,	5,341 48
Due for electricity,	1,145 77
Incandescent lamps on hand,	303 80
Other materials on hand,	1,537 94
Tools and appliances,	562 10
Horses, wagons, automobile,	1,038 85
Sundry accounts receivable,	1,238 53
Office furniture,	227 14
Cash (or town treasury),	12,117 10
Depreciation fund,	491 23
<hr/>	
Total assets, as per books of the plant,	\$51,645 35
Profit and loss balance,	6,095 36
<hr/>	
	\$57,740 71

LIABILITIES.

Appropriations for construction,	\$35,549 04
note payments,	9,000 00
Notes payable,	13,000 00
Interest accrued but not due,	191 67
<hr/>	
Total liabilities, as per books of the plant,	\$57,740 71

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$18,360 55	
Income from sale of light and power,		\$17,119 81
other sources,		182 36
Balance to profit and loss,		1,058 38
<hr/>		<hr/>
	\$18,360 55	\$18,360 55

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$3,720 81	
Balance of manufacturing account,	1,058 38	
Appropriations for operations,		\$3,892 69
interest,		500 00
depreciation,		2,500 00
Jobbing,		268 30
Interest paid,	509 40	
Depreciation,	2,500 00	
Returned to town treasury — unavailable maintenance to Dec. 31, 1910,	5,467 76	
Balance June 30, 1911,		6,095 36
<hr/>		<hr/>
	\$13,256 35	\$13,256 35

HOLYOKE.

ASSETS.

Real estate,	\$291,621 21
Machinery and manufacturing appliances (gas),	162,072 59
Street mains (gas),	176,031 42
Meters (gas),	90,391 01
Due for gas,	9,228 50
Gas coal on hand,	3,480 00
Coke on hand,	322 50
Tar on hand,	332 00
Enrichers on hand,	1,050 34
Purifying materials on hand,	2,690 00
Other gas materials on hand,	588 75
Tools and appliances (gas),	2,378 55
Water power plant,	14,367 16
Steam plant (electric),	267,637 34
Electric plant,	183,567 68
Electric lines,	81,156 62
Transformers,	43,058 84
Meters (electric),	52,310 70
Arc lamps,	24,340 22
Due for electricity,	22,838 14
Fuel on hand (electric),	2,740 00
Carbons on hand,	402 10
Oil and waste on hand,	124 25
Incandescent lamps on hand,	2,068 02
Globes on hand,	307 42
Tools and appliances (electric),	1,883 00
Horses, wagons, etc.,	3,388 00
Sundry accounts receivable,	903 88
Office furniture,	2,000 00
Cash (or city treasury),	14,948 08
Depreciation fund,	53,619 00

Total assets, as per books of the plant, \$1,511,847 32

LIABILITIES.

Appropriations for construction,	\$28,595 41
maintenance used for construction,	188,444 50
bond payments,	171,400 00
Bonds outstanding,	939,800 00
Unpaid bills,	24,600 24
Interest accrued but not due,	5,959 08
Amounts due from the plant, not included above,	82,382 87

Total liabilities, as per books of the plant, \$1,441,182 10

Profit and loss balance, 70,665 22

\$1,511,847 32

MANUFACTURING ACCOUNT.

Operating expenses:

	Dr.	Cr.
Gas,	\$116,433 18	
Electric,	146,805 33	

	Dr.	Cr.
Income from sale of gas,		\$176,862 07
residuals,		838 79
other sources (gas),		37 25
sale of electric light and power,		213,942 51
Balance to profit and loss:		
Gas,	\$61,304 93	
Electric,	67,137 18	
	<hr/>	<hr/>
	\$391,680 62	\$391,680 62

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$6,254 12
Balance of gas manufacturing account,		61,304 93
Balance of electric manufacturing account,		67,137 18
Appropriation for operations,		32,679 67
Interest paid,	\$35,259 07	
Depreciation,	53,619 00	
Operation appropriations used for construction,	7,793 88	
Other items,	38 73	
Balance June 30, 1911,	70,665 22	
	<hr/>	<hr/>
	\$167,375 90	\$167,375 90

HUDSON.

ASSETS.

Real estate,	\$6,342 10
Steam plant,	13,764 90
Electric plant,	7,298 46
Electric lines,	13,497 44
Transformers,	4,143 72
Meters,	6,101 90
Arc lamps,	717 04
Incandescent street lamps,	1,120 61
Nernst lamps,	220 04
Due for electricity,	2,119 91
Fuel on hand,	1,122 30
Carbons on hand,	10 87
Oil and waste on hand,	28 96
Incandescent lamps on hand,	405 17
Globes on hand,	13 33
Other materials on hand,	910 46
Tools and appliances,	659 24
Sundry accounts receivable,	84 49
Office furniture,	307 20
Cash (or town treasury),	5,370 97
Depreciation fund,	2,161 64
Insurance,	166 18
	<hr/>
Total assets, as per books of the plant,	\$66,566 93
Profit and loss balance,	23,646 02
	<hr/>
	\$90,212 95

LIABILITIES.

Appropriations for construction,	\$11,274 86
Overdrafts for construction,	15,940 30
Appropriations for extraordinary repairs,	1,500 00
note payments,	27,500 00
Notes payable,	33,500 00
Interest accrued but not due,	497 79
Total liabilities, as per books of the plant,	<u>\$90,212 95</u>

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$15,794 69	
Income from sale of light and power,		\$19,921 49
other sources,		1,200 00
Balance to profit and loss,	5,326 80	
	<u>\$21,121 49</u>	<u>\$21,121 49</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$21,443 51	
Balance of manufacturing account,		\$5,326 80
Interest received,		212 98
Appropriation for operations,		729 40
Jobbing,		186 20
Interest paid,	1,305 76	
Overdraft for construction,	1,757 66	
Depreciation,	2,533 73	
Previous receipts used to pay notes,	3,000 00	
Other items,	60 74	
Balance June 30, 1911,		23,646 02
	<u>\$30,101 40</u>	<u>\$30,101 40</u>

HULL.

ASSETS.

Real estate,	\$8,911 26
Steam plant,	21,586 44
Electric plant,	14,220 99
Electric lines,	36,189 46
Transformers,	8,796 70
Meters,	14,678 12
Arc lamps,	67 69
Nernst lamps,	380 97
Due for electricity,	7,119 05
Fuel on hand,	349 41
Carbons on hand,	3 90
Oil and waste on hand,	21 50
Incandescent lamps on hand,	797 07
Other materials on hand,	1,794 63
Tools and appliances,	562 53
Horses, wagons, etc.,	1,797 77
Office furniture,	765 26

Cash (or town treasury), for note payments and sinking funds,	\$2,911 24
Depreciation fund,	897 46
Insurance,	344 45
Sinking funds,	68,723 31

Total assets, as per books of the plant,	\$190,919 21
Profit and loss balance,	53,536 13

\$244,455 34

LIABILITIES.

Appropriations for construction,	\$44,807 61
note payments,	19,400 00
sinking funds,	64,444 24
Bonds outstanding,	60,000 00
Notes payable,	40,202 00
Unpaid bills,	4,745 64
Deposits,	6,711 18
Interest accrued but not due,	1,719 82
Cash overdraft, for maintenance,	2,424 85

Total liabilities, as per books of the plant,	\$244,455 34
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$27,865 29	
Income from sale of light and power,		\$31,302 59
other sources,		381 99
Balance to profit and loss,	3,819 29	
	<hr/> \$31,684 58	<hr/> \$31,684 58

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$56,563 19	
Balance of manufacturing account,		\$3,819 29
Interest received,		7 40
Bond premiums,		89 76
Income from sinking funds,		2,682 72
Jobbing,		3 01
Appropriation for operations,		955 75
depreciation,		5,544 25
Other items of income,		26 59
Interest paid,	4,424 60	
Depreciation,	5,566 99	
Other items,	110 12	
Balance June 30, 1911,		53,536 13
	<hr/> \$66,664 90	<hr/> \$66,664 90

IPSWICH.

ASSETS.

Real estate,	\$7,479 71
Steam plant,	15,516 69
Electric plant,	9,178 29
Electric lines,	33,209 35
Transformers,	2,420 83

Meters,	\$2,280 69
Incandescent street lamps,	441 64
Due for electricity,	2,047 12
Oil and waste on hand,	26 35
Incandescent lamps on hand,	86 20
Other materials on hand,	386 00
Tools and appliances,	116 20
Sundry accounts receivable,	537 35
Cash (or town treasury),	3,454 76

Total assets, as per books of the plant,	\$77,161 18
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LIABILITIES.

Appropriations for construction,	\$1,511 06
note payments,	5,750 00
Notes payable,	64,000 00
Interest accrued but not due,	365 00

Total liabilities, as per books of the plant,	\$71,626 06
Profit and loss balance,	5,535 12

\$77,161 18

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$12,068 58	
Income from sale of light and power,		\$9,537 15
other sources,		2,389 83
Balance to profit and loss,		141 60
	<hr/>	<hr/>
	\$12,068 58	\$12,068 58

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$3,578 26
Balance of manufacturing account,	\$141 60	
Appropriation for operations,		1,762 08
interest,		2,520 00
depreciation,		1,568 12
Jobbing,		126 38
Interest paid,	2,310 00	
Depreciation,	1,568 12	
Balance June 30, 1911,	5,535 12	
	<hr/>	<hr/>
	\$9,554 84	\$9,554 84

MANSFIELD.

ASSETS.

Real estate,	\$9,653 78
Steam plant,	29,940 79
Electric plant,	13,755 94
Electric lines,	14,282 83
Transformers,	5,314 63
Meters,	5,183 26
Incandescent street lamps,	1,496 71
Due for electricity,	2,403 43
Fuel on hand,	172 25

Oil and waste on hand,	\$31 00
Incandescent lamps on hand,	560 31
Other materials on hand,	1,165 99
Tools and appliances,	352 01
Sundry accounts receivable,	596 61
Office furniture,	123 63
Cash (or town treasury),	3,488 17
Depreciation fund,	150 00
Sinking funds,	8,553 31

Total assets, as per books of the plant,	\$97,224 65
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LIABILITIES.

Appropriations for construction,	\$4,442 82
bond payments,	5,000 00
sinking funds,	7,500 00
Bonds outstanding,	75,000 00
Interest accrued but not due,	703 33

Total liabilities, as per books of the plant,	\$92,646 15
Profit and loss balance,	4,578 50

\$97,224 65

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$17,388 34	
Income from sale of light and power,		\$17,680 49
Balance to profit and loss,	292 15	
	<hr/> \$17,680 49	<hr/> \$17,680 49

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$6,322 07
Balance of manufacturing account,		292 15
Income from sinking funds,		325 56
Appropriation for operations,		716 68
interest,		3,040 00
Jobbing,		176 84
Interest paid,	\$3,030 00	
Depreciation,	3,000 00	
Other items,	264 80	
Balance June 30, 1911,	4,578 50	
	<hr/> \$10,873 30	<hr/> \$10,873 30

MARBLEHEAD.**ASSETS.**

Real estate,	\$26,453 21
Steam plant,	26,433 38
Electric plant,	19,443 31
Electric lines,	21,209 75
Transformers,	10,100 62
Meters,	14,018 06
Arc lamps,	11,457 16
Incandescent street lamps,	97 33

Due for electricity,	\$337 01
Fuel on hand,	11 46
Carbons on hand,	32 30
Oil and waste on hand,	44 51
Incandescent lamps on hand,	180 00
Globes on hand,	13 20
Other materials on hand,	252 00
Fixtures, tools, etc., on hand,	512 89
Horses, wagons and automobile,	2,019 50
Office furniture,	305 75
Cash (or town treasury),	8,149 76
Depreciation fund,	1,307 13
Sinking funds,	21,572 86
Total assets, as per books of the plant,	\$163,949 19
Profit and loss balance,	42,799 92
	\$206,749 11

LIABILITIES.

Appropriations for construction,	\$71,242 82
Overdraft for construction,	1,065 27
Appropriations for bond payments,	7,000 00
note payments,	23,500 00
sinking funds,	17,000 00
Bonds outstanding,	81,000 00
Unpaid bills,	4,694 35
Interest accrued but not due,	1,246 67
Total liabilities, as per books of the plant,	\$206,749 11

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$29,555 30	
Income from sale of light and power,		\$30,381 00
Balance to profit and loss,	825 70	
	\$30,381 00	\$30,381 00

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$42,210 82	
Balance of manufacturing account,		\$825 70
Interest received,		313 81
Income from sinking funds,		703 18
Appropriation for operations,		1,659 16
interest,		2,786 19
depreciation,		4,108 51
Interest paid,	3,300 00	
Depreciation,	4,108 51	
Balance of receipts returned to town treasurer Jan. 31, 1911,	3,023 20	
Other items,	554 44	
Balance June 30, 1911,		42,799 92
	\$53,196 47	\$53,196 47

MERRIMAC.

ASSETS.

Steam plant,	\$3,045 59
Electric plant,	3,227 46
Electric lines,	10,947 53
Transformers,	2,576 66
Meters,	1,484 41
Due for electricity,	726 35
Fuel on hand,	833 98
Incandescent lamps on hand,	268 79
Tools and appliances,	102 26
Sundry accounts receivable,	451 76
Cash (or town treasury),	3,160 15
Depreciation fund,	2,077 62

Total assets, as per books of the plant,	\$28,902 56
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LIABILITIES.

Appropriations for construction,	\$3,903 16
Overdraft for construction,	176 66
Appropriations for bond payments,	3,000 00
note payments,	679 80
Bonds outstanding,	8,000 00
Notes payable,	4,800 00
Unpaid bills,	61 05
Interest accrued but not due,	240 00

Total liabilities, as per books of the plant,	\$20,860 67
Profit and loss balance,	8,041 89

\$28,902 56

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses,	\$6,526 99	
Income from sale of light and power,		\$7,445 19
other sources,		19 80
Balance of profit and loss,	938 00	
	<hr/> \$7,464 99	<hr/> \$7,464 99

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$7,127 06
Balance of manufacturing account,		938 00
Appropriation for interest,		502 00
depreciation,		754 02
Interest paid,	\$525 17	
Depreciation,	754 02	
Balance June 30, 1911,	8,041 89	
	<hr/> \$9,321 08	<hr/> \$9,321 08

MIDDLEBOROUGH.

ASSETS.

Real estate,	\$13,890 88
Machinery and manufacturing appliances (gas),	2,259 11
Street mains (gas),	2,853 96
Meters (gas),	830 40
Due for gas,	918 20
Gas coal on hand,	3 56
Enrichers on hand,	236 10
Other gas materials on hand,	20 00
Tools and appliances (gas),	151 07
Water power,	9,840 80
Steam plant (electric),	1,232 84
Electric plant,	4,891 10
Gas engine plant,	16,574 17
Electric lines,	7,253 32
Transformers,	3,720 06
Meters (electric),	7,201 58
Arc lamps,	817 79
Incandescent street lamps,	810 75
Due for electricity,	7,488 57
Fuel on hand (electric),	17 97
Carbons on hand,	35 73
Oil and waste on hand,	52 55
Incandescent lamps on hand,	79 05
Other electric materials on hand,	1,409 11
Tools and appliances (electric),	814 56
Horses, wagons, etc.,	101 50
Sundry accounts receivable,	1,774 68
Office furniture,	194 85
Cash (or town treasury),	3,445 05
Depreciation fund,	2,182 60
Total assets, as per books of the plant,	\$91,101 91
Profit and loss balance,	60,856 99

\$151,958 90

LIABILITIES.

Appropriations for construction,	\$29,842 26
extraordinary repairs,	2,890 00
bond payments,	31,500 00
note payments,	18,000 00
Bonds outstanding,	46,500 00
Notes payable,	21,200 00
Unpaid bills,	1,675 31
Interest accrued but not due,	451 33

Total liabilities, as per books of the plant, \$151,958 90

MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
Gas,	\$3,782 44	
Electric,	13,378 39	

	Dr.	Cr.
Income from sale of gas,		\$2,342 55
sale of electric light and power, . .		18,223 03
Balance to profit and loss:		
Gas,		1,439 89
Electric,	\$4,844 64	
	<hr/>	<hr/>
	\$22,005 47	\$22,005 47

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$63,064 15	
Balance of gas manufacturing account, . .	1,439 89	
Balance of electric manufacturing account, .		\$4,844 64
Appropriation for operations,		1,879 22
depreciation,		5,637 10
suburban lighting,		400 00
Other items of income,		14 26
Interest paid,	2,748 00	
Drainage account,	275 00	
Depreciation,	5,637 10	
Suburban lighting,	389 21	
Other items,	78 86	
Balance June 30, 1911,		60,856 99
	<hr/>	<hr/>
	\$73,632 21	\$73,632 21

MILLERS FALLS WATER SUPPLY DISTRICT.

ASSETS.

Real estate,	\$1,035 05
Steam plant,	3,046 46
Electric plant,	1,927 31
Electric lines,	4,783 87
Transformers,	463 61
Meters,	913 85
Arc lamps,	35 74
Incandescent street lamps,	58 19
Due for electricity,	1,131 99
Tools and appliances,	27 19
Cash (or town treasury),	2,306 72
Depreciation fund,	892 50
Sinking funds,	1,944 78
	<hr/>
Total assets, as per books of the plant,	\$18,567 26

LIABILITIES.

Appropriations for construction,	\$294 64
sinking funds,	1,800 00
Bonds outstanding,	15,000 00
Unpaid bills,	44 53
Interest accrued but not due,	50 00
	<hr/>
Total liabilities, as per books of the plant,	\$17,189 17
Profit and loss balance,	1,378 09
	<hr/>
	\$18,567 26

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$2,343 39	
Income from sale of light and power,		\$3,233 00
Balance to profit and loss,	889 61	
	<hr/>	<hr/>
	\$3,233 00	\$3,233 00

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$505 52
Balance of manufacturing account,		889 61
Income from sinking funds,		57 96
Rents,		25 00
Appropriation for interest,		500 00
depreciation,		462 35
Interest paid,	\$600 00	
Depreciation,	462 35	
Balance June 30, 1911,	1,378 09	
	<hr/>	<hr/>
	\$2,440 44	\$2,440 44

NORTH ATTLEBOROUGH.

Assets.

Real estate,	\$12,042 07
Steam plant,	27,736 00
Electric plant,	16,411 11
Electric lines,	22,963 25
Transformers,	7,521 10
Meters,	10,626 06
Arc lamps,	163 35
Incandescent street lamps,	261 42
Due for electricity,	2,997 75
Fuel on hand,	3,311 79
Carbons on hand,	12 90
Incandescent lamps on hand,	564 06
Globes on hand,	8 79
Other materials on hand,	1,572 40
Tools and appliances,	968 58
Horses, wagons, etc.,	100 00
Sundry accounts receivable,	250 20
Office furniture,	276 44
Cash (or town treasury),	7,869 88
Depreciation fund,	7,208 40
Sinking funds,	20,702 31
	<hr/>
Total assets, as per books of the plant,	\$143,567 86
Profit and loss balance,	10,868 91
	<hr/>
	\$154,436 77

LIABILITIES.

Appropriations for construction,	\$27,526 82
Overdrafts for construction,	881 73
note payments,	23,337 57
sinking funds,	18,002 43

Bonds outstanding,	\$50,000 00
Notes payable,	33,560 00
Unpaid bills,	866 42
Deposits,	23 54
Interest accrued but not due,	175 84
Amounts due from the plant, not included above,	62 42

Total liabilities, as per books of the plant,	<u>\$154,436 77</u>
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MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses,	\$20,873 80	
Income from sale of light and power,		\$30,687 75
Balance to profit and loss,	9,813 95	
	<u>\$30,687 75</u>	<u>\$30,687 75</u>

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,	\$16,301 45	
Balance of manufacturing account,		\$9,813 95
Income from sinking funds,		853 00
Appropriation for operations,		3,199 99
depreciation,		4,493 20
Jobbing,		81 60
Interest paid,	3,415 59	
Maintenance cash used for construction,	881 73	
Depreciation,	4,493 20	
Sinking fund payments,	1,500 00	
Note payments,	2,695 00	
Other items,	23 68	
Balance June 30, 1911,		10,868 91
	<u>\$29,310 65</u>	<u>\$29,310 65</u>

NORWOOD.

ASSETS.

Real estate,	\$6,455 56
Electric plant,	3,690 56
Electric lines,	45,353 62
Transformers,	5,668 75
Meters,	6,701 77
Incandescent street lamps,	2,179 43
Due for electricity,	3,038 46
Incandescent lamps on hand,	435 44
Other materials on hand,	1,428 52
Tools and appliances,	50 00
Automobile,	288 00
Office furniture,	400 00
Cash (or town treasury),	5,088 46
Depreciation fund,	2,134 53
Insurance,	114 13

Total assets, as per books of the plant,	<u>\$83,027 23</u>
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LIABILITIES.

Appropriations for construction,		\$12,551 59
note payments,		14,400 00
Notes payable,		45,500 00
Unpaid bills,		1,943 76
Interest accrued but not due,		152 08

Total liabilities, as per books of the plant,		\$74,547 43
Profit and loss balance,		8,479 80

\$83,027 23

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$18,780 74	
Income from sale of light and power,		\$25,347 51
other sources,		427 01
Balance to profit and loss,	6,993 78	
	<hr/>	<hr/>
	\$25,774 52	\$25,774 52

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$5,084 88
Balance of manufacturing account,		6,993 78
Appropriation for operations,		488 65
Jobbing,		480 13
Interest paid,	\$2,028 33	
Depreciation,	2,539 31	
Balance June 30, 1911,	8,479 80	
	<hr/>	<hr/>
	\$13,047 44	\$13,047 44

PEABODY.**ASSETS.**

Real estate,	\$10,169 81
Steam plant,	27,114 07
Electric plant,	29,189 10
Electric lines,	33,451 26
Transformers,	11,351 67
Meters,	12,564 18
Arc lamps,	3,883 60
Inside wiring,	768 95
Due for electricity,	9,145 31
Fuel on hand,	120 00
Carbons on hand,	95 00
Oil and waste on hand,	15 00
Incandescent lamps on hand,	400 00
Globes on hand,	75 00
Other materials on hand,	2,177 46
Tools and appliances,	175 00
Horses, wagons, etc.,	400 00

Cash (or town treasury),	\$13,781 47
Depreciation fund,	4,011 62
Sinking funds,	19,528 84

Total assets, as per books of the plant,	\$178,417 34
Profit and loss balance,	25,886 38

\$204,303 72

LIABILITIES.

Appropriations for construction,	\$65,631 50
Overdrafts for construction,	4,663 77
Appropriations for bond payments,	4,000 00
note payments,	22,700 00
sinking funds,	15,200 00
Bonds outstanding,	90,000 00
Unpaid bills,	1,245 95
Interest accrued but not due,	862 50

Total liabilities, as per books of the plant,	\$204,303 72
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$36,853 17	
Income from sale of light and power,		\$35,717 83
other sources,		600 00
Balance to profit and loss,		535 34
	<hr/>	<hr/>
	\$36,853 17	\$36,853 17

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$27,286 61	
Balance of manufacturing account,	535 34	
Income from sinking funds,		\$811 68
Interest received,		10 33
Appropriation for operations,		2,967 23
interest,		3,350 00
depreciation,		5,615 70
Interest paid,	3,491 60	
Depreciation,	5,615 70	
Returned to town treasurer — unavailable funds to Jan. 16, 1911,	1,712 07	
Balance June 30, 1911,		25,886 38
	<hr/>	<hr/>
	\$38,641 32	\$38,641 32

READING.

ASSETS.

Real estate,	\$11,526 59
Steam plant,	10,781 61
Electric plant,	12,733 93
Electric lines,	33,016 96
Transformers,	6,603 33
Meters,	9,444 46
Arc lamps,	4,709 17
Incandescent street lamps,	1,514 53

Due for light and power,	\$3,727 83
Fuel on hand,	139 71
Carbons on hand,	10 44
Oil and waste on hand,	30 53
Incandescent lamps on hand,	582 03
Globes on hand,	36 62
Other materials on hand,	3,679 25
Tools and appliances,	1,222 92
Horses, wagons, etc.,	648 85
Sundry accounts receivable,	33 15
Office furniture,	562 85
Cash (or town treasury),	9,072 94
Insurance,	730 26

Total assets, as per books of the plant,	\$110,807 96
Profit and loss balance,	36,131 95

\$146,939 91

LIABILITIES.

Appropriations for construction,	\$24,115 04
Overdrafts for construction,	3,211 64
Appropriations for bond payments,	28,000 00
note payments,	21,000 00
Bonds outstanding,	51,000 00
Notes payable,	15,300 00
Unpaid bills,	2,781 81
Deposits,	829 67
Interest accrued but not due,	702 25

Total liabilities, as per books of the plant,	\$146,939 91
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$23,442 94	
Income from sale of light and power,		\$27,216 75
other sources,		444 75
Balance to profit and loss,	4,218 56	
	<hr/> \$27,661 50	<hr/> \$27,661 50

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$35,659 67	
Balance of manufacturing account,		\$4,218 56
Interest received,		48 12
Appropriation for operations,		570 78
interest,		1,300 00
Jobbing,		167 29
Interest paid,	2,697 25	
Depreciation,	4,079 78	
Balance June 30, 1911,		36,131 95
	<hr/> \$42,436 70	<hr/> \$42,436 70

ROWLEY.

ASSETS.

Real estate,	\$344 17
Electric plant,	523 60
Electric lines,	8,902 52
Transformers,	716 12
Meters,	432 90
Incandescent street lamps,	1,164 57
Due for electricity,	58 38
Tools and appliances,	24 38
Cash (or town treasury),	2,491 95

Total assets, as per books of the plant,	\$14,658 59
Profit and loss balance,	355 41

 \$15,014 00

LIABILITIES.

Appropriation for construction,	\$2,401 00
note payments,	400 00
Notes payable,	11,600 00
Unpaid bills,	309 40
Interest accrued but not due,	58 00
Amounts due from the plant, not included above,	245 60

Total liabilities, as per books of the plant,	\$15,014 00
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$1,325 88	
Income from sale of light and power,		\$968 47
Balance to profit and loss,		357 41
	<hr/>	<hr/>
	\$1,325 88	\$1,325 88

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,	\$357 41	
Appropriation for operations,		\$60 00
interest,		480 00
depreciation,		360 00
Interest paid,	538 00	
Depreciation,	360 00	
Balance June 30, 1911,		355 41
	<hr/>	<hr/>
	\$1,255 41	\$1,255 41

SHREWSBURY.

ASSETS.	
Real estate,	\$544 99
Electric plant,	2,592 36
Electric lines,	25,757 56
Transformers,	633 44
Meters,	1,003 29
Incandescent street lamps,	521 75
Due for light and power,	780 45
Incandescent lamps on hand,	39 93
Tools and appliances,	187 38
Cash (or town treasury),	2,682 99
Depreciation fund,	1,666 48

Total assets, as per books of the plant, \$36,410 62

LIABILITIES.	
Appropriations for construction,	\$5,943 31
note payments,	4,000 00
Notes payable,	24,300 00
Unpaid bills,	584 45
Interest accrued but not due,	272 02

Total liabilities, as per books of the plant, \$35,099 78

Profit and loss balance, 1,310 84

\$36,410 62

MANUFACTURING ACCOUNT.

	DR.	CR.
Operating expenses,	\$5,517 87	
Income from sale of light and power,		\$4,095 35
Balance to profit and loss,		1,422 52
	<hr/>	<hr/>
	\$5,517 87	\$5,517 87

PROFIT AND LOSS ACCOUNT.

	DR.	CR.
Balance June 30, 1910,		\$844 88
Balance of manufacturing account,	\$1,422 52	
Appropriation for operation,		1,894 33
interest,		933 32
depreciation,		950 00
Jobbing,		5 33
Interest paid,	935 44	
Depreciation,	950 00	
Return to town treasury — unavailable funds		
Jan. 31, 1911,	9 06	
Balance June 30, 1911,	1,310 84	
	<hr/>	<hr/>
	\$4,627 86	\$4,627 86

TAUNTON.

ASSETS.

Real estate,	\$61,729 12
Steam plant,	93,958 15
Electric plant,	56,364 57
Electric lines,	60,378 79
Transformers,	24,624 16
Meters,	13,713 92
Arc lamps,	13,838 20
Due for electricity,	12,768 28
Fuel on hand,	2,772 00
Carbons on hand,	102 45
Oil and waste on hand,	75 00
Incandescent lamps on hand,	1,647 05
Globes on hand,	91 55
Other materials on hand,	661 16
Tools and appliances,	5,762 88
Horses, wagons and automobiles,	825 32
Sundry accounts receivable,	974 03
Office furniture,	1,572 99
Cash (or city treasury),	13,751 73
Depreciation fund,	13,058 71
Sinking funds,	95,125 06

Total assets, as per books of the plant, \$473,795 12

LIABILITIES.

Appropriations for construction,	\$23,437 28
note payments,	1,500 00
sinking funds,	56,804 29
Bonds outstanding,	364,000 00
Unpaid bills,	3,380 53
Interest accrued but not due,	1,139 15
Amounts due from the plant, not included above,	492 04

Total liabilities, as per books of the plant, \$450,553 29

Profit and loss balance, 23,241 83

\$473,795 12

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$51,803 03	
Income from sale of light and power,		\$78,199 37
Balance to profit and loss,	26,396 34	
	<hr/> \$78,199 37	<hr/> \$78,199 37

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$19,474 98
Balance of manufacturing account,		26,396 34
Income from sinking funds,		3,114 00

	Dr.	Cr.
Appropriation for interest,		\$6,861 25
operations,		2,795 13
Interest paid,	\$13,718 13	
Depreciation,	10,932 05	
Maintenance cash voted for construction Dec. 1, 1910,	7,535 53	
Other items,	3,214 16	
Balance June 30, 1911,	23,241 83	
	<hr/>	<hr/>
	\$58,641 70	\$58,641 70

TEMPLETON.

ASSETS.

Electric plant,	\$989 99
Electric lines,	21,773 04
Transformers,	1,258 07
Meters,	1,857 89
Arc lamps,	38 39
Incandescent street lamps,	215 00
Due for light and power,	565 52
Carbons on hand,	2 70
Incandescent lamps on hand,	261 82
Tools and appliances,	231 01
Office furniture,	140 38
Cash (or town treasury),	1,759 52
Depreciation fund,	1,411 15
	<hr/>
Total assets, as per books of the plant,	\$30,504 48

LIABILITIES.

Appropriations for construction,	\$3,112 50
note payments,	6,366 68
Notes payable,	19,349 99
Unpaid bills,	359 68
	<hr/>

Total liabilities, as per books of the plant,	\$29,188 85
Profit and loss balance,	1,315 63
	<hr/>

\$30,504 48

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$4,349 91	
Income from sale of light and power,		\$4,718 08
other sources,		290 98
Balance to profit and loss,	659 15	
	<hr/>	<hr/>
	\$5,009 06	\$5,009 06

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$1,366 64
Balance of manufacturing account,	659 15	
Appropriation for operations,		72 75
interest,		262 05
depreciation,		850 92

	Dr.	Cr.
Interest paid,	\$813 06	
Depreciation,	850 92	
Returned to town treasury — unavailable as of Feb. 1, 1911,	231 90	
Balance June 30, 1911,	1,315 63	
	<hr/>	<hr/>
	\$3,211 51	\$3,211 51

WAKEFIELD.

Assets.		
Real estate,		\$22,051 34
Machinery and manufacturing appliances (gas),		46,958 47
Street mains (gas),		42,243 94
Meters (gas),		9,587 37
Due for gas,		3,982 95
Gas coal on hand,		2,626 19
Coke on hand,		400 00
Enrichers on hand,		353 44
Purifying materials on hand,		322 50
Other gas materials on hand,		2,150 20
Tools and appliances (gas),		1,070 04
Fire alarm supplies,		66 23
Fire alarm installation,		3,853 25
Steam plant (electric),		12,662 08
Electric plant,		12,661 55
Electric lines,		24,350 49
Transformers,		4,285 59
Meters (electric),		4,807 64
Arc lamps,		2,455 73
Incandescent street lamps,		130 26
Due for electricity,		1,611 90
Carbons on hand,		9 15
Oil and waste on hand,		49 48
Incandescent lamps on hand,		170 77
Globes on hand,		8 26
Other electric materials on hand,		3,454 89
Motors,		472 19
Tools and appliances (electric),		842 45
Horses, wagons etc.,		1,324 88
Sundry accounts receivable,		1,049 90
Office furniture,		620 02
Cash (or town treasury),		7,829 00
Depreciation fund,		2,470 07
Insurance,		830 88
		<hr/>
Total assets, as per books of the plant,		\$217,563 10
Profit and loss balance,		67,113 34
		<hr/>
		\$284,676 44

LIABILITIES.

Appropriations for construction,	\$42,581 12
bond payments,	84,000 00
note payments,	8,300 00
fire alarm construction,	1,715 06

Bonds outstanding,	\$138,000 00
Notes payable,	1,000 00
Unpaid bills,	6,722 96
Deposits,	959 00
Interest accrued but not due,	1,398 30

Total liabilities, as per books of the plant,	\$284,676 44
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MANUFACTURING ACCOUNT.

Operating expenses:	Dr.	Cr.
Gas,	\$33,683 34	
Electric,	19,478 31	
Income from sale of gas,		\$37,873 89
residuals,		7,017 82
other sources (gas),		40 18
sale of electric light and power,		16,472 47
other sources (electric),		1,200 00
Balance to profit and loss:		
Gas,	11,248 55	
Electric,		1,805 84
	<u>\$64,410 20</u>	<u>\$64,410 20</u>

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$69,612 52	
Balance of gas manufacturing account,		\$11,248 55
Balance of electric manufacturing account,	1,805 84	
Appropriations for operations,		6,185 05
fire alarm maintenance,		2,744 17
Jobbing,		726 63
Other items of income,		59 50
Interest paid,	5,594 05	
Loss on jobbing bills,	33 74	
Returned to town treasury — unavailable balance		
Dec. 31, 1910,	11 00	
Fire alarm maintenance,	444 86	
Depreciation,	6,813 88	
Maintenance funds used for bond payments,	3,750 00	
Other items,	11 35	
Balance June 30, 1911,		67,113 34
	<u>\$88,077 24</u>	<u>\$88,077 24</u>

WELLESLEY.

ASSETS.

Real estate,	\$7,390 00
Electric plant,	4,793 00
Electric lines,	36,392 90
Transformers,	3,223 70
Meters,	5,226 80
Incandescent street lamps,	2,482 80
Due for electricity,	1,928 65
Incandescent lamps on hand,	422 59
Other materials on hand,	1,400 52

Tools and appliances,	\$190 00
Horses, wagons, etc.,	100 00
Sundry accounts receivable,	368 48
Furniture,	210 00
Cash (or town treasury),	14,034 15
Depreciation fund,	706 16

Total assets, as per books of the plant,	\$78,869 75
Profit and loss balance,	4,952 77

\$83,822 52

LIABILITIES.

Appropriations for construction,	\$25,569 19
bond payments,	39,000 00
Bonds outstanding,	19,000 00
Interest accrued but not due,	253 33

Total liabilities, as per books of the plant,	\$83,822 52
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MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$22,043 39	
Income from sale of light and power,		\$26,700 96
Balance to profit and loss,	4,657 57	
	<hr/> \$26,700 96	<hr/> \$26,700 96

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,	\$3,002 82	
Balance of manufacturing account,		\$4,657 57
Appropriation for operation,		551 14
Interest paid,	806 66	
Depreciation,	3,352 00	
Appropriation for construction, transferred from maintenance,	3,000 00	
Balance June 30, 1911,		4,952 77
	<hr/> \$10,161 48	<hr/> \$10,161 48

WEST BOYLSTON.

ASSETS.

Real estate,	\$842 50
Electric lines,	14,350 34
Transformers,	511 59
Meters,	612 74
Incandescent street lamps,	145 53
Due for electricity,	99 33
Incandescent lamps on hand,	161 01
Tools and appliances,	60 00
Office furniture,	25 00
Cash (or town treasury),	4,127 11
Depreciation fund,	481 17

Total assets, as per books of the plant,	\$21,416 32
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LIABILITIES.

Appropriations for construction,	\$5,669 67
note payments,	1,000 00
Notes payable,	13,000 00
Interest accrued but not due,	27 44
Total liabilities, as per books of the plant,	\$19,697 11
Profit and loss balance,	1,719 21
	<hr/>
	\$21,416 32

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses,	\$1,330 11	
Income from sale of light and power,		\$691 33
Balance to profit and loss,		638 78
	<hr/>	<hr/>
	\$1,330 11	\$1,330 11

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance of manufacturing account,	\$638 78	
Appropriation for operation,		\$2,465 18
interest,		820 00
depreciation,		481 17
Interest paid,	587 44	
Depreciation,	481 17	
Other items,	339 75	
Balance June 30, 1911,	1,719 21	
	<hr/>	<hr/>
	\$3,766 35	\$3,766 35

WESTFIELD.

ASSETS.

Real estate,	\$56,271 14
Machinery and manufacturing appliances (gas),	20,341 05
Street mains (gas),	43,139 20
Meters (gas),	12,985 74
Due for gas,	6,577 43
Gas coal on hand,	807 84
Coke on hand,	700 00
Enrichers on hand,	345 00
Purifying materials on hand,	17 80
Other gas materials on hand,	4,786 06
Gas on hand,	85 26
Tools and appliances (gas),	437 25
Steam plant (electric),	32,370 53
Electric plant,	21,878 67
Electric lines,	15,934 05
Transformers,	8,262 22
Meters (electric),	5,423 86
Arc lamps,	2,996 28
Incandescent street lamps,	33 15
Inside wiring,	626 25
Due for electricity,	5,776 44

Fuel on hand (electric),	\$1,606 20
Carbons on hand,	112 71
Oil and waste on hand,	60 34
Incandescent lamps on hand,	79 46
Other electric materials on hand,	1,512 22
Tools and appliances (electric),	594 72
Sundry accounts receivable,	3,279 63
Office furniture,	543 00
Cash (or town treasury),	71,174 88
Depreciation fund,	3,854 79

Total assets, as per books of the plant, \$322,612 17

LIABILITIES.

Appropriations for construction,	\$77,000 00
Bonds outstanding,	118,000 00
Unpaid bills,	7,687 06
Deposits,	942 30
Interest due but not paid,	170 00
Interest accrued but not due,	820 00

Total liabilities, as per books of the plant, \$204,619 36
 Profit and loss balance, 117,992 81

\$322,612 17

MANUFACTURING ACCOUNT.

	Dr.	Cr.
Operating expenses:		
Gas,	\$32,395 52	
Electric,	27,136 54	
Income from sale of gas,		\$40,266 55
residuals,		6,497 00
other sources (gas),		1 26
sale of electric light and power,		28,654 73
other sources (electric),		826 53
Balance to profit and loss:		
Gas,	14,369 29	
Electric,	2,344 72	
	\$76,246 07	\$76,246 07

PROFIT AND LOSS ACCOUNT.

	Dr.	Cr.
Balance June 30, 1910,		\$103,458 56
Balance of gas manufacturing account,		14,369 29
Balance of electric manufacturing account,		2,344 72
Interest received,		1,155 56
Bond premiums,		195 00
Appropriation for operations,		10,468 64
Jobbing,		1,040 87
Other items of income,		9 00
Interest paid,	\$5,708 33	
Depreciation,	8,797 94	
Other items,	542 56	
Balance June 30, 1911,	117,992 81	
	\$133,041 64	\$133,041 64

APPENDIX D.—GAS STATISTICS.

TABLE 1. — *Financial Statistics — Year ending June 30, 1911.*

COMPANY.	Capital Stock.	STOCKHOLDERS.		Value at Par of Stock held in Massachusetts.	Assessed Value of Property.	TAXES PAID.		DIVIDENDS.		
		Whole Number.	Resident in Massachusetts.			Amount.	Per M. sold.	Amount.	Rate Per Cent.	Per M. sold.
Adams,	\$60,000	5	3	\$59,800	\$55,400	\$620 84	\$0 0387	\$7,200 00	12	1-
Amesbury,	60,000	7	7	60,000	58,800	1,029 40	0798	-	-	-
Amherst,	100,000	59	58	99,700	48,650	719 17	3838	6,000 00	6	1-
Arlington,	100,000	6	4	99,800	104,642	1,653 37	0407	1,000 00	-	\$0 0246
Athol,	214,300	8	8	214,300	266,650	673 61	0698	15,667 50	10	1-
Attleboro,	58,000	24	22	55,200	191,450	3,003 12	0667	6,960 00	12	1315
Atwood, L. Sidney (Chatham),	4-	-	-	-	400	6 00	1601	-	-	-
Barre,	2,400	4	4	2,400	3,950	126 45	9427	400 00	5,166	2 9822
Barnardston,	2,300	7	7	2,300	500	8 50	2 4467	-	-	-
Beverly,	285,900	57	56	284,000	416,000	3,231 12	0519	34,308 00	12	1-
Blackstone,	10,000	4	4	10,000	35,000	268 31	-	-	-	-
Boston,	15,124,600	15	15	15,124,600	18,025,500	390,000 00	0789	1,361,214 00	9	2578
Brockton,	559,000	133	129	545,600	468,900	11,374 52	0539	33,540 00	6	1688
Cambridge,	1,200,000	648	574	1,082,300	2,352,700	55,360 54	0772	132,000 00	11	1841
Charlestown,	600,000	359	315	544,600	992,000	21,426 01	0839	60,000 00	10	1-
Chicopee,	166,500	26	14	80,000	233,480	4,841 19	0896	6,660 00	4	1233
Citizens' (Nantucket),	26,000	74	73	25,600	20,115	148 46	0428	-	-	-
Citizens' (Quincy),	383,000	8	8	383,000	313,075	5,820 00	0951	19,150 00	5	3130
Clinton,	7123,000	6	4	122,000	186,200	1,936 95	0998	6,150 00	5	1-
Cotuit,	4-	-	-	-	670	10 16	1469	-	-	-
Danvers,	30,000	7	7	30,000	36,000	686 40	0834	1,800 00	6	2187
Dedham,	141,750	8	7	141,700	100,141	3,139 46	0571	11,340 00	8	2063
East Boston,	575,000	24	19	572,375	729,100	22,920 00	0675	57,500 00	10	1693

* Par value, \$50.
 * On \$7,200.
 * Par value, \$500.
 * Par value, \$25.

1 Dividends paid in part from electric profits.
 2 Two and one-half per cent. on \$119,500; two and one-half per cent. on \$143,000;
 two and one-half per cent. on \$149,000; two and one-half per cent. on \$214,300.
 4 Unincorporated.

TABLE 1. — *Financial Statistics, etc* — Concluded.

COMPANY.	STOCKHOLDERS.		Capital Stock.	Value at Par of Stock held in Massachusetts.		Assessed Value of Property.	TAXES PAID.		DIVIDENDS.		
	Whole Number.	Resident in Massachusetts.					Amount.	Per M. sold.	Amount.	Rate Per Cent.	Per M. sold.
Easthampton,	45	40	\$150,000	\$146,400	\$190,600	\$1,008 98	\$0 0787	16	\$6,000 00	8	30 3509
Edison (Brookton),	284	273	948,800	918,700	1,776,200	42,245 14	4181	8	75,904 00	27	10
Fall River,	344	316	662,300	662,300	988,500	8,585 71	0903	10	186,300 00	10	10
Fitchburg,	204	188	566,150	514,600	48,500	753 50	0316	10	56,233 75	10	10
Framingham,	9	9	75,000	75,000	23,350	568 84	0611	10	—	10	10
Gardner,	13	12	26,200	22,200	4,000	108 93	1 7214	10	—	10	10
Georgetown,	4	4	7,500	7,500	283,100	6,108 56	0909	18	27,000 00	18	4017
Gloucester,	15	11	160,000	148,650	150,600	2,685 66	1502	76	2,880 00	76	1611
Greenfield,	73	30	116,850	40,500	775	12 66	5722	10	—	10	10
Hadley,	26	24	1,725	1,575	1,000	16 66	3577	10	—	10	10
Hatfield,	17	16	4,750	4,700	663,325	13,832 42	0646	10	—	10	10
Haverhill,	7	7	75,000	75,000	1,820	28 10	1389	3	480 00	3	1484
Hyannis,	15	15	16,000	16,000	23,100	392 22	1212	8	152,000 00	8	10875
Ipswich,	596	539	1,900,000	1,724,400	2,403,310	39,681 64	0899	5	2,500 00	5	1 2051
Lawrence,	8	6	50,000	49,800	173,800	2,706 80	0947	12	120,000 00	12	2051
Leominster,	5	3	40,000	39,800	7,350	369 92	3447	10	1,600 00	10	10
Lexington,	554	478	1,000,000	901,000	1,790,620	55,413 99	0947	10	120,000 00	10	10
Lynn,	326	303	1,115,600	1,115,600	3,496,310	32,431 74	0486	10	127,152 00	10	10
Lynn,	47	41	1,584,000	1,572,100	1,783,650	37,503 53	0761	117	107,182 25	117	2175
Malden,	25	24	28,900	28,600	26,500	257 45	5864	10	—	10	10
Marion,	6	6	130,000	130,000	153,280	3,487 16	1211	4	5,850 00	4	2033
Marlborough-Hudson,	9	7	72,300	72,100	118,600	1,984 22	1003	11	7,953 00	11	4018
Medford,	13	13	50,000	50,000	68,350	1,602 31	1108	3	1,750 00	3	1210
Natick,	491	430	1,059,800	980,200	963,375	34,284 65	0783	10	126,921 00	10	10
New Bedford,	86	83	281,500	281,500	377,800	3,909 43	1187	8	22,800 00	8	10
Newburyport,	7	7	560,000	560,000	878,600	16,500 00	0443	12	67,200 00	12	1803
Newton,	5	5	200,000	199,800	440,475	3,594 90	0417	10	23,000 00	10	10
North Adams,	7	4	120,000	119,900	250,000	5,127 56	0875	12	14,400 00	12	2459
Northampton,	37	29	68,100	62,800	77,400	3,063 48	0841	10	6,810 00	10	1869
North Attleborough,											

Northfield,	1	—	—	—	—	2,000	39 86	7971	363 32	11 +	7 2660
Norwood,	4	4	72,000	82,500	82,500	759 00	0498	4,320 00	6	—	2829
Old Colony,	6	6	20,000	7,500	29,000	—	—	—	—	—	—
Otis Co. (Ware),	—	—	—	29,000	24,050	502 72	0481	—	—	—	—
People's (Stoneham),	1	1	10,000	320,150	320,150	131 49	0288	27,720 00	—	—	2176
Pittsfield,	98	88	375,900	38,500	30,600	930 40	0732	2,800 00	7	7	2203
Plymouth,	39	33	38,500	1,000	1,000	17 92	2013	—	—	—	—
Sadler, T. G. (S. Attleborough),	—	—	—	—	—	—	—	—	—	—	—
Salern,	227	214	489,000	564,900	13,307 72	0844	33,968 00	—	13 8	2155	—
South Hadley,	22	22	5,000	2,500	102 00	7776	125 00	—	24	9630	—
Spencer,	6	4	97,300	35,900	617 82	0257	3,900 00	—	—	—	—
Springfield,	401	230	460,100	2,103,600	39,510 64	0619	131,339 50	—	14 12	2056	—
Suburban (Revere),	24	20	676,300	391,500	8,418 87	0748	53,017 00	—	16 9	—	—
Sunderland,	4	4	1,200	250	8 50	4432	—	—	—	—	—
Taunton,	181	169	220,000	142,000	6,053 43	0505	19,000 00	—	10 10	1584	—
Vineyard Haven,	4	4	10,000	8,400	126 33	5392	600 00	—	6	2 5608	—
Vineyard Lighting (Oak Bluffs),	4	4	25,000	30,600	130 80	0811	—	—	—	—	—
Waite & Smith (S. Dartmouth),	—	—	—	600	8 94	3787	—	—	—	—	—
Webster,	96	91	158,000	282,750	1,310 77	0416	10,200 00	—	6	—	—
Williamstown,	5	3	39,800	37,850	617 82	0816	4,800 00	—	12	—	—
Woburn,	40	39	44,600	58,500	1,488 91	0977	4,510 00	—	10	2980	—
Worcester County,	7	5	82,500	135,000	1,069 86	0655	—	—	—	—	—
Worcester,	287	257	901,100	2,109,000	42,990 46	0592	120,000 00	—	12	1653	—
	—	—	—	\$48,656,463	\$974,976 61	—	\$3,319,468 32	—	—	—	—

- ¹ Three per cent. on \$50,000; three per cent. on \$150,000.
- ² Dividends paid in part from electric profits.
- ³ Included in assessed value of electric property.
- ⁴ Par value \$50.
- ⁵ Two and one-half per cent. on \$50,000; seven and one-half per cent. on \$500,150.
- ⁶ No dividends declared.
- ⁷ On preferred stock only.
- ⁸ Par value \$25.
- ⁹ Unincorporated.
- ¹⁰ Eight per cent. on \$1,002,500; four per cent. on \$1,173,800.
- ¹¹ One and three-quarters per cent. on \$1,473,800; one and three-quarters per cent. on \$1,510,300; one and three-quarters per cent. on \$1,550,800; one and three-quarters per cent. on \$1,584,000.
- ¹² Seven and one-half per cent. on \$945,000; three per cent. on \$1,053,400; three per cent. on \$1,059,300.
- ¹³ Four per cent. on \$249,800; four per cent. on \$499,800.
- ¹⁴ Two and one-half per cent. on \$1,069,800; two and one-half per cent. on \$1,088,800; two and one-half per cent. on \$1,090,400; four and one-half per cent. on \$1,104,100.
- ¹⁵ Seven per cent. on \$665,500; two per cent. on \$671,000.
- ¹⁶ Five per cent. on \$190,000; five per cent. on \$220,000.

TABLE 2.

The following table shows the amount of gas made and the amount bought in the years ending June 30, 1911, and June 30, 1910, the amount sold by meter and for public lamps in both these years; the amount used at works and offices, with the amount of gas unaccounted for during the year ending June 30, 1911, and the percentage of unaccounted for gas in both years:—

Coal and Water-gas Companies.

COMPANY.	Gas made. Year ending June 30, 1911.	Gas made. Year ending June 30, 1910.	Gas bought. Year ending June 30, 1911.	Gas bought. Year ending June 30, 1910.	Gas sold by Meter. Year ending June 30, 1911.	Gas sold by Meter. Year ending June 30, 1910.	Gas sold for Public Lamps. Year ending June 30, 1911.	Gas sold for Public Lamps. Year ending June 30, 1910.	Gas used at Works and Offices. Year ending June 30, 1911.	Gas unaccounted for. Year ending June 30, 1911.	Percentage unaccounted for, 1911.	Gas unaccounted for. Year ending June 30, 1910.	Percentage unaccounted for, 1910.
Adams.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Percentage unaccounted for, 1911.	Feet.	Percentage unaccounted for, 1910.
Amesbury.	15,549,800	14,435,200	17,833,500	16,897,000	16,030,000	15,314,100	—	—	114,900	1,783,600	9.97	1,783,600	9.24
Andover.	2,424,041	—	—	—	12,900,501	12,277,700	—	—	400,000	2,240,100	14.46	2,240,100	12.18
Athol.	43,709,000	32,717,100	—	—	1,873,910	498,235	—	—	—	527,131	21.74	527,131	21.74
Athol.	10,008,520	9,078,700	—	—	39,570,600	29,715,600	—	—	412,700	2,707,300	6.19	2,707,300	8.69
Attleborough.	55,916,800	52,082,500	—	—	9,451,136	8,492,400	—	—	38,994	321,420	3.21	321,420	4.56
Beverly.	67,450,800	57,703,600	—	—	52,916,652	48,958,138	—	—	434,300	2,566,948	4.59	2,566,948	5.24
Blackstone.	3,052,048,000	2,917,289,000	3,023,800	1,428,100	53,978,400	45,459,800	—	—	211,600	4,983,400	7.36	4,983,400	8.74
Boston.	244,117,400	221,151,500	2,425,069,600	2,274,346,100	4,399,089,338	4,233,948,961	141,756,815	139,661,885	12,964,300	183,133,097	3.34	183,133,097	2.94
Brookton.	—	—	—	—	211,193,000	192,836,100	—	—	2,650,000	20,338,900	12.43	20,338,900	10.97
Cambridge.	767,478,000	702,448,000	—	—	712,042,948	664,754,762	4,478,621	4,470,874	3,926,000	46,511,631	6.05	46,511,631	4.15
Charlestown.	288,662,249	264,438,001	1,153,000	14,631,000	249,192,800	222,048,800	6,095,234	6,189,925	1,782,000	23,463,715	11.31	23,463,715	10.98
Chiloppe.	—	—	62,235,200	58,890,936	54,038,100	47,241,500	—	—	783,100	7,414,000	11.91	7,414,000	18.88
Citizens (Nantucket).	3,838,910	4,039,560	—	—	3,450,000	3,173,400	18,000	4,850	101,000	267,010	6.94	267,010	17.07
Citizens (Quincy).	—	—	67,906,000	52,664,000	57,010,249	45,454,600	3,264,200	2,354,170	311,300	6,266,251	9.23	6,266,251	8.75
Clinton.	21,313,000	20,405,300	—	—	19,413,500	19,072,500	—	—	186,900	1,713,300	8.06	1,713,300	8.95
Danvers.	—	—	8,253,000	7,085,400	8,228,900	7,068,300	—	—	24,500	—	—	—	—
Dedham.	—	—	59,549,500	53,014,200	54,247,000	47,160,000	543,900	747,000	107,200	4,454,800	7.48	4,454,800	9.04
East Boston.	132,324,000	142,827,000	221,223,000	109,100,000	313,599,975	213,499,798	12,498,997	9,460,232	1,724,000	12,838,987	3.63	12,838,987	3.40
Easthampton.	14,669,220	12,614,600	—	—	12,836,000	11,040,100	—	—	99,900	1,700,366	11.90	1,700,366	11.45

Fall River,	557,625,100	535,495,500	-	525,131,000	490,075,900	5,865,494	5,536,438	2,255,500	24,496,406	4.39	8.91
Fitchburg,	103,896,000	105,890,000	-	98,135,104	86,164,350	-	-	567,000	7,822,906	7.56	18.68
Franklin,	27,017,000	24,016,000	-	23,846,100	20,865,900	-	-	512,700	2,651,200	9.31	10.18
Gardner,	-	-	-	-	-	-	-	-	-	-	-
Glocester,	73,665,300	66,512,900	-	8,259,000	7,298,500	1,063,000	1,035,000	341,200	6,265,300	8.61	7.86
Greenfield,	20,624,700	16,946,200	-	66,192,300	60,363,300	1,029,500	1,046,000	612,000	2,041,500	9.96	8.49
Greenfield,	-	-	-	17,876,900	14,970,000	-	-	-	-	-	-
Haverhill,	230,587,000	212,182,000	-	210,424,500	199,300,700	3,794,800	4,061,900	2,192,000	14,328,100	6.21	3.87
Ipswich,	3,283,600	3,697,700	-	3,235,500	3,678,200	-	-	30,200	10,000	.31	.27
Lawrence,	468,131,140	482,505,300	-	439,577,100	416,391,900	1,880,134	1,472,800	1,611,500	25,096,188	5.36	7.02
Leominster,	31,194,000	27,025,000	-	23,659,700	25,270,200	-	-	61,300	2,626,100	8.12	6.18
Lexington,	4,423,800	591,977,700 ¹	1,010,000	1,073,100	803,200 ¹	-	-	30,200	333,000	22.26	14.78
Lowell,	603,770,000	591,457,000	-	566,786,200	554,828,500	19,173,000	18,844,200	5,291,800	13,989,900	2.31	1.97
Lynn,	711,610,181	648,626,322	-	667,170,500	601,690,700	-	-	1,414,200	42,837,451	6.96	6.35
Malden,	606,712,000	433,729,000	466,900	380,294,170	345,003,600	-	-	3,442,300	10,303,080	2.03	1.49
Marlborough-Hudson,	34,708,000	32,013,000	-	28,776,700	26,646,800	-	-	447,000	6,481,000	16.66	16.06
Milford,	22,750,000	22,751,020	-	19,762,500	20,161,800	-	-	188,500	2,784,500	12.26	10.64
Natick,	-	16,087,400	-	13,596,800	13,291,500	865,901	833,000	-	-	-	9.83
New Bedford,	444,428,628	370,857,300	-	424,600,300	347,482,900	13,309,755	12,899,068	1,004,100	5,494,573	1.24	2.73
Newburyport,	35,432,900	33,489,300	-	32,914,600	30,798,600	-	-	435,000	2,068,700	6.64	6.66
Newton,	-	-	-	362,308,668	313,427,350	10,487,300	9,625,500	1,496,700	13,700,014	3.63	3.64
North Adams,	99,149,000	89,851,700	-	60,576,600	65,250,700	-	-	284,900	12,796,700	12.91	11.22
Northampton,	64,716,500	60,823,500	-	68,570,700	64,143,400	-	-	615,300	6,897,200	8.66	10.29
North Attleborough,	39,332,600	35,608,300	-	36,433,090	33,257,650	-	-	245,600	2,661,610	6.74	6.06
Norwood,	18,453,800	16,177,700	-	15,283,900	13,764,500	-	-	349,000	2,668,600	15.56	11.16
Otis Co. (Ware),	22,478,724	20,638,490	-	10,440,100 ¹	8,880,400 ¹	5,6920	4,880	245,400	1,671,162	7.43	5.87
People's (Stoneham),	-	-	6,637,900	4,899,250	4,389,300	-	-	36,600	2,267,500	32.46	34.97
Pittsfield,	133,888,000	117,190,100	-	127,379,400	111,965,400	-	-	1,557,700	4,694,500	3.44	3.18
Plymouth,	14,073,140	12,768,280	-	12,707,600	11,719,800	-	-	218,700	1,147,300	8.06	6.83

¹ Oil gas.² No record.³ For five and one-half months.⁴ Not including 10,140,900 feet used in mills of company.⁵ Not including 10,316,100 feet used in mills of company.

Coal and Water-gas Companies — Concluded.

COMPANY.	Gas made. Year ending June 30, 1911.	Gas made. Year ending June 30, 1910.	Gas bought. Year ending June 30, 1911.	Gas bought. Year ending June 30, 1910.	Gas sold by Meter. Year ending June 30, 1911.	Gas sold by Meter. Year ending June 30, 1910.	Gas sold for Public Lamps. Year ending June 30, 1911.	Gas sold for Public Lamps. Year ending June 30, 1910.	Gas used at Works and Offices. Year ending June 30, 1911.	Gas unaccounted for. Year ending June 30, 1911.	Percentage unaccounted for, 1911.	Percentage unaccounted for, 1910.
Salem,	Feet. 174,297,294	Feet. 157,683,000	Feet. —	Feet. —	Feet. 157,597,300	Feet. 144,867,000	Feet. —	Feet. —	Feet. 2,943,900	Feet. 13,877,094	7.96	6.88
Spencer,	28,074,100	24,804,700	—	—	9,830,100	9,350,960	—	—	1,773,300	1,810,200	6.97	4.53
Springfield,	—	588,027,000	—	—	578,471,000	506,490,647	—	—	4,700,000	21,406,800	3.22	2.06
Suburban (Rovers),	—	—	115,880,771	93,581,016	112,798,870	91,191,530	2,731,405	2,731,405	70,300	3,036,601	2.59	2.48
Taunton,	122,752,000	119,304,000	—	—	119,920,900	107,366,500	—	—	1,228,100	11,417,000	8.80	9.17
Vineyard Lighting (Oak Bluffs),	1,783,760	—	—	—	1,597,700	1,499,100	15,300	15,300	—	179,300	10.06	—
Webster,	34,133,196	31,280,380	—	—	31,433,320	28,993,900	20,200	20,200	47,800	2,581,276	7.56	7.00
Williamstown,	—	—	7,645,300	—	7,572,300	6,535,100	—	—	25,100	47,900	6.63	6.41
Woburn,	17,585,600	16,832,500	—	—	15,256,500	14,995,460	—	—	223,800	2,090,500	11.89	9.08
Worcester County,	4,700,700	—	14,243,800	13,990,180	15,812,800	11,973,460	777,600	777,600	186,500	2,363,500	12.64	8.14
Worcester,	780,707,000	680,760,000	—	—	719,181,500	630,900,300	6,680,400	6,680,400	2,813,900	51,988,500	6.96	7.33
	10,894,883,713	10,017,747,443	3,400,965,071	3,046,164,732	12,307,432,448	11,304,767,141	228,373,082	228,373,082	64,075,564	608,416,247	—	—

: No record.

Oil-gas Company.

Edison (Brookton),	1,028,137	905,213	-	-	835,480	716,044	-	-	2,400	205,478	19,99	27.76
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Acetylene-gas Companies.

Alwood, L. S. (Chatham),	37,480	33,575	-	-	37,480	33,575	-	40,320	-	-	-	-
Barre,	134,131	137,259	-	-	96,153	96,959	-	-	-	-	-	-
Barnardston,	39,662	44,856	-	-	34,740	44,243	-	-	-	4,922	12.41	1.37
Cotuit,	69,183	56,180	-	-	66,050	56,180	-	-	-	-	-	-
Georgetown,	63,280	65,594	-	-	63,280	65,594	-	-	-	-	-	-
Gregory, J. D. (Princeton),	22,752	- ¹	-	-	22,752	17,283	-	-	-	-	-	-
Hadley,	23,848	20,365	-	-	21,952	18,124	-	-	-	1,896	7.95	11.00
Hatfield,	46,580	73,128	-	-	46,580	73,128	-	-	-	-	-	-
Hyannis,	202,450	186,962	-	-	176,700	158,287	-	28,575	-	-	-	-
Marion,	440,755	428,343	-	-	283,031	287,615	-	100,728	-	-	-	-
Northfield,	50,267	54,348	-	-	50,005	52,573	-	-	-	262	.53	3.27
Sadler, T. G. (South Attleborough),	89,010	110,820	-	-	89,010	102,200	-	-	-	-	-	7.72
South Hadley,	131,170	138,710	-	-	73,455	84,797	-	53,913	-	-	-	-
Sunderland,	22,342	22,950	-	-	19,177	20,197	-	-	-	3,165	14.17	12.00
Vineyard Haven,	280,500	265,640	-	-	198,302	200,940	-	33,500	-	46,198	16.47	11.75
Waite & Smith (South Dartmouth),	23,645	14,150	-	-	23,606	14,150	-	-	-	39	1.65	-
	-	-	-	-	1,312,223	1,306,865	-	317,036	-	-	-	-

¹ No record.

TABLE 3. — Showing Amount of Gas sold by Companies to Each Other for the Years ending June 30, 1910 and 1911.

SOLD BY —		SOLD TO —		Number of Feet, 1910.	Number of Feet, 1911.	Amount paid, 1911.
Arlington, Beverly,	. . . . .	Lexington, Danvers, Charlestown, Chelsea, Citizens' (Quincy), Dedham, East Boston, Everett, Newton, Waltham, Malden, Newton, Boston, Suburban (Revere), Marblehead, Suburban (Revere), Boston, Adams, Williamstown, Worcester County, Chicopee, Newton, Blackstone, People's (Stonham),	. . . . .	7,085,400 14,631,000 67,068,000 52,664,000 53,074,200 109,100,000 1,687,000 335,786,500 16,285,000 466,900 288,400 180,100 18,737,016 3,991,000 74,824,000 2,274,169,000 16,897,000 7,252,500 13,990,180 58,890,936 43,600 — 6,657,900	1,010,000 8,253,400 1,153,000 — 67,906,000 59,549,500 221,223,000 2,363,800 388,002,700 — 532,800 — 88,600 13,465,971 — 102,414,800 2,424,973,000 17,933,500 7,945,300 14,243,800 62,235,200 — 3,023,800 7,292,700	\$1,293 20 7,015 44 547 71 — 30,557 70 22,925 07 84,059 50 1,181 90 159,081 10 — 452 88 — 44 30 6,732 97 — 43,526 30 688,144 66 10,760 10 4,587 18 12,107 12 26,449 97 — 2,116 66 7,292 70
Boston, . . . . .	. . . . .		. . . . .
Cambridge,	. . . . .		. . . . .
Dedham,	. . . . .		. . . . .
East Boston,	. . . . .		. . . . .
Lynn,	. . . . .		. . . . .
Malden,	. . . . .		. . . . .
N. E. Gas & Coke Co.,	. . . . .		. . . . .
North Adams,	. . . . .		. . . . .
Spencer,	. . . . .		. . . . .
Springfield,	. . . . .		. . . . .
Waltham,	. . . . .		. . . . .
Woonsocket,	. . . . .		. . . . .
Town of Wakefield,	. . . . .		. . . . .

TABLE 4.

The following table shows the daily capacity of the several works June 30, 1911, and the greatest and least day's output during the year ending with that date, for each of the companies: —

COMPANY.	Daily Capacity of Works.	Greatest Output.	Date.	Least Output.	Date.
	Feet. — ¹	Feet. — ¹		Feet. — ¹	
Adams,	200,000	123,500	July 9	14,300	Dec. 9
Amesbury,	150,000	14,350	Dec. 2	4,210	Apr. 16
Amherst,	150,000	184,300	May 16	86,200	Aug. 22
Arlington,	75,000	40,800	Nov. 12	10,000	July 4
Athol,	300,000	207,000	Oct. 7	70,000	July 24
Attleboro,					
Barre,	— ²	— ²	—	— ²	—
Bernardston,	— ²	— ²	—	— ²	—
Beverly,	300,000	268,800	Dec. 30	113,300	May 21
Boston,	31,000,000	19,409,000	Dec. 24	6,177,000	July 24
Blackstone,	— ¹	— ²	—	— ²	—
Brockton,	1,500,000	1,039,000	Jan. 21	480,400	July 3
Cambridge,	7,000,000	3,418,000	Dec. 24	1,151,000	July 24
Charlestown,	1,620,000	1,246,000	Dec. 24	467,000	July 24
Chicopee,	640,000	218,200	July 13	115,800	Oct. 30
Citizens' (Nantucket),	35,000	23,830	July 6	5,970	Mar. 26
Citizens' (Quincy),	— ¹	265,000	Sept. 8	83,000	Jan. 29
Clinton,	285,000	112,600	Dec. 24	15,900	Dec. 25
Danvers,	20,000	— ²	—	— ²	—
Dedham,	— ¹	219,600	Dec. 24	111,700	July 10
East Boston,	1,200,000	1,343,000	Dec. 24	640,000	Apr. 23
Easthampton,	60,000	62,154	Dec. 31	19,345	Apr. 10
Edison (Brockton),	10,000	5,964	Sept. 13	1,341	Mar. 27
Fall River,	4,000,000	2,269,700	Dec. 24	1,041,700	Apr. 23
Fitchburg,	1,206,000	395,000	July 16	158,000	Mar. 26
Framingham,	150,000	99,000	Dec. 24	38,000	Mar. 9
Gardner,	250,000	— ²	—	— ²	—
Georgetown,	500	— ²	—	— ²	—
Gloucester,	725,000	308,700	Dec. 24	146,700	Oct. 16
Greenfield,	288,000	81,700	Sept. 9	33,100	Mar. 5
Hadley,	— ²	88	Feb. — ²	41	Aug. — ²
Hatfield,	500	— ²	—	— ²	—
Haverhill,	2,000,000	931,000	Dec. 6	376,000	July 10
Hyannis,	1,200	— ²	—	— ²	—
Ipswich,	288,000	22,000	Dec. 24	5,000	July 3
Lawrence,	4,812,000	1,830,055	Dec. 24	769,394	July 24
Leominster,	300,000	191,200	Dec. 24	57,600	May 5
Lexington,	— ¹	— ²	—	2,500	Nov. 30
Lowell,	4,000,000	2,524,000	Dec. 24	914,000	July 10
Lynn,	6,000,000	2,523,826	Dec. 21	1,286,772	July 4
Malden,	2,750,000	1,905,000	Dec. 24	984,000	July 15
Marion,	2,000	— ²	—	— ²	—
Marlborough-Hudson,	200,000	137,000	July 16	61,000	Mar. 20
Milford,	150,000	90,400	Dec. 24	38,200	May 28

¹ No generating plant.² No record.

TABLE 4 — *Concluded.*

COMPANY.	Daily Capacity of Works.	Greatest Output.	Date.	Least Output.	Date.
	Feet.	Feet.		Feet.	
Natick, . . .	125,000	- ¹	-	- ¹	-
New Bedford, . . .	3,020,000	1,842,100	Dec. 24	805,000	July 24
Newburyport, . . .	200,000	146,500	Dec. 24	52,700	Mar. 9
Newton, . . .	1,300,000	1,524,000	Dec. 24	577,000	July 10
North Adams, . . .	825,000	384,000	Nov. 20	192,000	June 10
Northampton, . . .	450,000	265,100	Feb. 15	51,300	Aug. 14
North Attleborough, . . .	215,000	177,900	Apr. 30	54,900	Dec. 13
Northfield, . . .	6,000	- ¹	-	- ¹	-
Norwood, . . .	150,000	82,900	Nov. 15	32,200	Apr. 23
Otis Co. (Ware), . . .	150,000	96,083	Dec. 30	23,573	July 24
Peoples' (Stoneham), . . .	- ²	29,715	Aug. 25	- ¹	-
Pittsfield, . . .	950,000	478,500	Dec. 24	230,900	Mar. 26
Plymouth, . . .	80,000	53,585	Dec. 24	26,400	Apr. 23
Sadler, T. G. (South Attleborough), . . .	- ¹	- ¹	-	- ¹	-
Salem, . . .	1,700,000	664,000	Dec. 24	328,000	July 24
South Hadley, . . .	- ¹	620	May 19	160	July 20
Spencer, . . .	150,000	127,000	Dec. 24	16,200	Apr. 24
Springfield, . . .	3,600,000	2,624,000	Dec. 24	1,223,000	July 24
Suburban (Revere), . . .	- ²	481,633	July 16	198,175	Apr. 13
Sunderland, . . .	4,000	- ¹	-	- ¹	-
Taunton, . . .	700,000	532,000	Dec. 30	191,000	July 24
Vineyard Haven, . . .	1,500	1,340	Dec. 4	310	May 11
Vineyard Lighting (Oak Bluffs), . . .	150,000	25,600	Aug. 12	4,800	Feb. 25
Webster, . . .	315,000	120,500	Dec. 24	62,330	Mar. 26
Williamstown, . . .	- ²	- ¹	-	- ¹	-
Woburn, . . .	80,000	75,000	Dec. 25	40,000	June 25
Worcester County, . . .	150,000	81,000	Feb. 1	34,800	Apr. 9
Worcester, . . .	5,200,000	3,063,000	Dec. 24	1,252,000	July 10

¹ No record.² No generating plant.

TABLE 5.

The following table shows the total quantity of gas sold during the year ending June 30, 1911, the percentage of increase in sales over the previous year; the capital (including bonds) per thousand feet sold, omitting those companies which have electric light plants; the average price received for all gas sold during the year ending June 30, 1911, and the average price the year previous:—

Coal and Water-gas Companies.

COMPANY.	Total Sales of Gas.	Increase over 1909-10.	Capital per M sold, including Bonds.	Average Price received per M sold, 1910-11.	Average Price received per M sold, 1909-10.
	Feet.	Per Cent.			
Adams,	16,030,000	4.68	—	\$1.14	\$1.14
Amesbury,	12,900,500	5.07	\$11.77	1.63	1.63
Amherst,	1,873,910	276.04	—	1.72	4.45 ¹
Arlington,	40,580,600 ²	36.56	8.33	1.28	1.29
Athol,	9,651,136	13.64	—	1.55	1.50
Attleboro,	52,915,652	8.08	1.10	1.20	1.20
Beverly,	62,231,800 ³	18.44	—	1.13	1.13
Blackstone,	3,023,800	41.92	—	1.29	1.29
Boston,	5,281,044,203 ⁴	5.12	3.19	.744	.749
Brockton,	211,193,000	9.53	3.91	1.11	1.11
Cambridge,	717,054,369 ⁵	7.03	2.23	.854	.878
Charlestown,	255,288,034	7.16	—	.867	.905
Chicopee,	54,038,100	14.39	5.67	1.19	1.28
Citizens' (Nantucket),	3,468,000	2.66	—	2.07	2.06
Citizens' (Quincy),	61,174,549	7.04	10.04	1.43	1.48
Clinton,	19,413,600	1.79	—	1.53	1.48
Danvers,	8,228,900	16.42	4.18	1.62	1.62
Dedham,	54,979,500 ⁶	14.15	3.80	1.04	1.03
East Boston,	339,564,043 ⁷	40.49	1.69	.861	.89
Easthampton,	12,825,000	16.17	—	1.61	1.60
Fall River,	530,996,494	7.14	1.68	.845	.864
Fitchburg,	95,135,104	11.71	—	1.14	1.14
Framingham,	23,848,100	14.35	7.97	1.51	1.55
Gardner,	9,312,000	11.77	8.92	2.09	2.10
Gloucester,	67,221,800	9.47	2.86	1.10	1.10
Greenfield,	17,875,900	19.41	13.45	1.59	1.64
Haverhill,	214,149,300	5.30	1.64	.931	1.02
Ipswich,	3,235,500	12.06 ⁸	9.52	1.92	1.88
Lawrence,	441,397,234	5.63	—	.905	.902
Leominster,	28,529,700	12.90	6.98	1.48	1.56
Lexington,	1,073,100	33.60	41.75	2.15	3.68 ¹
Lowell,	584,959,300	1.97	1.75	.927	.941
Lynn,	667,170,500	10.17	—	.78	.777
Malden,	492,708,970 ⁹	17.36	3.83	.864	.906
Marlborough-Hudson,	28,779,700	8.41	8.83	1.50	1.53
Milford,	19,792,500	1.78 ⁸	4.43	1.40	1.53
Natick,	14,462,701	2.40	5.01	1.56	1.55
New Bedford,	437,810,055	21.51	—	.857	.91
Newburyport,	32,914,600	6.91	—	1.39	1.41
Newton,	372,795,988	15.40	1.88	.94	.976
North Adams,	86,155,400 ¹⁰	8.51	—	.882	.902
Northampton,	58,570,700	8.18	2.32	1.24	1.33

¹ Oil gas price.² Includes 1,010,000 feet sold to other companies.³ Includes 8,253,400 feet sold to other companies.⁴ Includes 740,198,000 feet sold to other companies.⁵ Includes 532,800 feet sold to other companies.⁶ Includes 88,600 feet sold to other companies.⁷ Includes 13,465,971 feet sold to other companies.⁸ Decrease.⁹ Includes 102,414,800 feet sold to other companies.¹⁰ Includes 25,578,800 feet sold to other companies.

Coal and Water-gas Companies — Concluded.

COMPANY.	Total Sales of Gas.	Increase over 1909-10.	Capital per M sold, including Bonds.	Average Price received per M sold, 1910-11.	Average Price received per M sold, 1909-10.
	Feet.	Per Cent.			
North Attleborough, . . .	36,433,990	9.55	\$1.87	\$1.30	\$1.31
Norwood, . . .	15,233,900	10.76	4.86	1.57	1.57
Otis Co. (Ware), . . .	10,445,620	17.56	—	1.31	1.33
Peoples' (Stoneham), . .	4,899,250	11.62	4.08	1.79	1.91
Pittsfield, . . .	127,379,400	13.75	3.26	1.14	1.16
Plymouth, . . .	12,707,500	8.43	3.23	1.79	1.83
Salem, . . .	157,597,300	8.72	3.33	1.11	1.11
Spencer, . . .	24,078,600 ¹	3.16	—	1.13	1.13
Springfield, . . .	638,862,200 ²	12.45	2.28	.828	.847
Suburban (Revere), . .	112,798,870	23.69	—	1.00	1.03
Taunton, . . .	119,920,900	11.69	1.92	.987	1.04
Vineyard Lighting (Oak Bluffs), . . .	1,613,000	6.51	—	2.92	2.93
Webster, . . .	31,503,520	8.57	—	1.36	1.41
Williamstown, . . .	7,572,300	10.72	—	1.15	1.25
Woburn, . . .	15,236,500	1.60	2.96	1.40	1.41
Worcester County, . .	16,336,900	28.12	18.17	1.65	1.62
Worcester, . . .	725,964,600	13.86	2.59	.806	.805
	13,504,957,690	—	—	—	—

Oil-gas Company.

Edison (Brockton), . .	825,480	15.28	—	\$4.73	\$4.74
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Acetylene-gas Companies.

Atwood, L. S. (Chat- ham), . . .	37,480	11.63	—	\$15.00	\$15.00
Barre, . . .	134,131	2.28 ³	\$17.89	15.91	16.14
Bernardston, . . .	34,740	21.48 ³	74.84	14.82	14.68
Cotuit, . . .	69,183	23.15	32.62	15.61	14.93
Georgetown, . . .	63,280	3.48 ³	150.13	15.00	15.00
Gregory, J. D. (Prince- ton), . . .	22,752	31.57	—	15.00	15.00
Hadley, . . .	21,952	21.12	89.97	14.86	15.02
Hatfield, . . .	46,580	36.30 ³	153.50	14.90	14.32
Hyannis, . . .	202,300	8.80	29.73	16.80	16.72
Marion, . . .	439,055	2.50	—	15.44	15.03
Northfield, . . .	50,005	4.69 ³	66.43	15.00	15.00
Sadler, Thos. G. (South Attleborough), . . .	89,010	12.96 ³	—	12.67	12.77
South Hadley, . . .	131,170	5.44 ³	38.12	13.50	13.78
Sunderland, . . .	19,177	8.36 ³	62.57	15.00	14.79
Vineyard Haven, . . .	234,302	.06 ³	42.68	12.57	13.57
Waite & Smith (South Dartmouth), . . .	23,606	66.82	—	20.00	20.00
	1,618,723	—	—	—	—

¹ Includes 14,243,800 feet sold to other companies.² Includes 62,235,200 feet sold to other companies.³ Decrease.

TABLE 6.

The following tables show the capital (including bonds), the gas sold, the gas unaccounted for, and the number of consumers per mile of main; also the gas sold per consumer. Where capital is employed for both gas and electric light the amount per mile of main is omitted.

Coal and Water-gas Companies.

COMPANY.	PER MILE OF MAIN.				Gas sold per Consumer.
	Capital.	Gas sold.	Gas unaccounted for.	Number of Consumers.	
		Feet.	Feet.		Feet.
Adams,	—	1,050,953	117,263	78.7	13,358
Amesbury,	\$3,991 06	339,174	59,132	29.8	11,366
Amherst,	—	174,104	48,997	12.8	13,579
Arlington,	6,542 34	785,480	52,403	51.6	14,843
Athol,	—	1,349,381	44,940	63.2	21,352
Attleboro,	2,900 93	2,646,635	128,384	123.8	21,371
Beverly,	—	1,767,873	141,000	87.8	17,457
Blackstone,	—	1,088,544	—	76.7	14,220
Boston,	18,348 24	5,759,768	199,733	147.4	32,540
Brockton,	6,907 79	1,764,671	253,504	93.6	18,853
Cambridge,	10,114 21	4,526,831	293,632	178.9	25,122
Charlestown,	—	4,324,500	550,349	175.6	24,042
Chicopee,	6,346 08	1,118,858	153,507	77.7	14,406
Citizens' (Nantucket),	—	1,677,299	129,139	183.8	9,079
Citizens' (Quincy),	7,449 28	742,193	76,025	54.3	12,944
Clinton,	—	1,227,543	108,460	63.7	19,260
Danvers,	2,473 44	591,677	—	49.3	11,996
Dedham,	5,193 96	1,367,959	110,841	62.8	21,532
East Boston,	8,109 60	4,789,094	181,076	196.3	22,530
Easthampton,	—	1,070,558	141,936	86.5	12,379
Fall River,	7,372 43	4,398,577	202,919	177.7	24,479
Fitchburg,	—	1,682,369	138,340	95.0	17,709
Framingham,	11,157 63	1,400,465	155,690	77.0	18,177
Gardner,	5,507 39	617,518	— ¹	38.4	14,264
Gloucester,	5,729 00	2,000,592	186,462	85.0	23,176
Greenfield,	9,028 77	671,510	76,907	52.3	12,842
Haverhill,	5,150 76	3,147,023	210,514	125.2	24,699
Ipswich,	6,316 48	663,539	2,051	51.3	12,942
Lawrence,	—	2,705,953	153,850	123.5	21,826
Leominster,	6,859 60	980,964	86,857	66.8	14,683
Lexington,	6,194 52	148,378	46,113	23.5	6,312
Lowell,	5,824 13	3,323,783	79,321	122.1	26,322
Lynn,	—	4,000,114	253,840	153.5	26,053
Malden,	10,694 05	2,789,334	58,328	115.3	19,167
Marlborough-Hudson,	5,465 64	619,289	116,872	51.4	12,042
Milford,	7,481 75	1,686,588	237,286	84.7	19,912
Natick,	6,138 85	1,224,612	— ¹	84.4	13,638
New Bedford,	—	4,032,174	50,616	150.1	26,038

¹ No record.

Coal and Water-gas Companies — Concluded.

COMPANY.	PER MILE OF MAIN.				Gas sold per Consumer.
	Capital.	Gas sold.	Gas unaccounted for.	Number of Consumers.	
		Feet.	Feet.		Feet.
Newburyport,	—	1,200,357	75,443	74.4	16,143
Newton,	\$3,658 32	1,948,295	71,599	69.4	27,278
North Adams,	—	2,686,124	398,971	99.2	19,043
Northampton,	3,761 39	1,619,907	154,803	77.4	20,909
North Attleborough,	3,767 32	2,015,543	146,688	75.0	26,869
Norwood,	3,864 31	795,520	149,799	49.2	16,155
Otis Co. (Ware),	—	1,454,491	232,698	79.2	18,348
People's (Stoneham),	1,679 10	411,316	198,763	44.7	9,209
Pittsfield,	6,948 01	2,132,609	77,094	109.2	19,531
Plymouth,	4,211 84	1,305,412	117,849	100.0	13,060
Salem,	7,538 98	2,264,817	199,427	137.8	16,437
Spencer,	—	2,152,566	162,364	68.2	12,870
Springfield,	7,948 10	3,483,872	116,731	129.7	24,120
Suburban (Revere),	—	1,897,065	50,549	114.4	16,581
Taunton,	3,341 26	1,742,115	165,857	72.5	24,018
Vineyard Lighting (Oak Bluffs),	—	674,272	74,988	127.1	5,256
Webster,	—	1,346,654	110,365	116.0	11,600
Williamstown,	—	615,729	3,895	30.2	20,356
Woburn,	4,537 67	1,532,999	210,333	76.6	20,022
Worcester County,	4,237 39	233,162	34,166	18.6	12,136
Worcester,	11,122 93	4,300,854	307,997	137.8	30,910

Oil-gas Company.

Edison (Brockton),	—	156,991	39,078	36.3	4,322
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Acetylene-gas Companies.

Atwood, L. S. (Chatham),	—	53,543	— ¹	22.8	2,343
Barre,	\$728 28	40,702	—	14.6	2,003
Barnardston,	2,308 78	30,849	4,371	24.0	1,287
Cotuit,	5,462 97	167,485	—	48.4	3,303
Georgetown,	3,856 09	25,686	—	20.7	1,241
Gregory, J. D. (Princeton),	—	52,712	—	25.5	2,068
Hadley,	4,930 52	54,802	4,733	24.9	2,195
Hatfield,	2,097 34	13,663	—	10.0	13,700
Hyannis,	4,156 06	139,809	—	42.2	2,897
Marion,	—	35,696	—	8.5	2,791
Northfield,	3,758 13	56,576	296	21.5	2,632
Sadler, T. G. (South Attleborough),	—	117,494	—	50.2	2,344
South Hadley,	2,435 65	63,897	—	12.7	2,823
Sunderland,	977 78	15,626	2,579	11.4	1,370
Vineyard Haven,	3,226 80	75,605	14,907	26.5	2,418
Waite & Smith (South Dartmouth),	—	95,881	1,584	121.9	787

¹ No record.

TABLE 7.

The following table shows the number of tons of coal carbonized in each of the two years to June 30, 1911, with the kind and quantities of enricher used by the various companies in making gas from coal, and the percentage of cost of coal received from residuals in the year ending June 30, 1911:—

COMPANY.	Number of Tons of Coal carbon- ized, Year ending June 30, 1911.	Number of Tons of Coal carbon- ized, Year ending June 30, 1910.	Enrichers used.	Cannel (Tons).	Naphtha (Gallons).	Oil (Gallons).	Benzol (Gallons).	Percentage of Cost of Coal re- ceived from Residual Products.
Attleboro,	5,105	4,856	Benzol,	—	—	—	7,025	45.94
Beverly,	6,386	5,310	Benzol,	—	—	—	8,650	57.06
Brookton,	6,903 ¹	6,155 ¹	—	—	—	—	—	6.05
Cambridge,	42,873 ¹	4,063 ¹	—	—	—	—	—	40.86
Charlestown,	24,246 ¹	23,126	—	—	—	—	—	59.38
Citizens' (Nantucket),	677	998	Gas oil,	—	—	50	—	9.31
East Boston,	7,466 ^{1,4}	7,675 ^{1,5}	—	—	—	—	—	44.56
Easthampton,	1,313	1,242	Cannel and gas oil,	13 ¹	—	2,734	—	39.02
Fitchburg,	4,231 ¹	5,835 ¹	—	—	—	—	—	29.63
Framingham,	2,485 ¹	2,221	Benzol,	—	—	—	1,189	35.27
Gloucester,	6,269	6,047	Gas oil,	—	—	6,882	—	68.14
Lawrence,	22,028 ¹	24,728 ¹	—	—	—	—	—	29.87
Lowell,	34,313 ¹	31,569	—	—	—	—	—	50.93
Lynn,	28,853	29,583	—	—	—	—	—	31.83

¹ Not including coal for water gas.

² Used only in water-gas apparatus and included in quantities given on pages 235 a and 236 a.

³ No enricher used.

⁴ Also 1,756 $\frac{1}{2}$ tons coke.

⁵ Also 2,078 tons coke.

TABLE 7 — *Concluded.*

COMPANY.	Number of Tons of Coal carbon- ized, Year ending June 30, 1911.	Number of Tons of Coal carbon- ized, Year ending June 30, 1910.	ENRICHERS USED.	Cannel (Tons).	Naphtha (Gallons).	Oil (Gallons).	Benzol (Gallons).	Percentage of Cost of Coal re- ceived from Residual Products.
Malden,	17,893½ ¹	16,333 ¹	-	-	-	-	-	29.73
Marlborough-Hudson,	3,181	4,895	-	-	-	-	-	35.32
Milford,	2,500	2,411	Cannel gas oil,	16	-	709	-	45.08
Natick,	1,966½	1,771	Cannel,	15½	-	-	-	16.62
New Bedford,	18,213½ ¹	9,939 ¹	-	-	-	-	-	31.86
Newburyport,	3,206½	3,202	Naphtha benzol,	-	200	-	3,809	41.36
North Adams,	10,287	8,626	Gas oil,	-	-	22,566	-	48.16
Northampton,	3,165	3,338	Gas oil,	-	-	2,838	-	21.26
North Attleborough,	3,726	3,319	Gas oil,	-	-	3,260	-	38.63
Norwood,	1,719½	1,648	Gas oil,	-	-	719	-	35.17
Otis Co. (Ware),	2,222	1,885	Cannel benzol,	27	-	-	1,021	26.66
Pittsfield,	5,079½ ¹	4,969 ¹	Benzol,	-	-	-	507	8.98
Plymouth,	1,296	1,230	Gas oil,	-	-	1,471	-	30.38
Salem,	15,802½	14,541	Naphtha,	-	22,570	-	-	52.89
Springfield,	24,957 ¹	24,485 ¹	-	-	-	-	-	35.61
Taunton,	12,174	-	Benzol,	-	-	-	7,255	46.27
Woburn,	1,720	1,614	Cannel,	35	-	-	-	37.77
Worcester,	35,749½ ¹	32,445 ¹	-	-	-	-	-	25.07

* No enricher used.

* Used only in water-gas apparatus and included in quantities given on pages 233 a and 234 a.

* Not including coal for water gas.

TABLE 8. — *Water Gas.*

The following table shows the materials and quantity of each used in the manufacture of water gas, also the process used and the quantity of gas made: —

COMPANY.	Process used.	Materials used in Generator.	Quantity used.	Materials used for Making Steam.	Quantity used.	Enricher used.	Quantity used.	Water Gas made.
Amesbury. . .	Improved Lowe-Granger. . .	Anthracite. . .	472.0 tons. . .	Bituminous. . .	294.0 tons. . .	Naphtha. . .	Gallons. 90,417	Feet. 15,549,600
Amherst. . .	Lowe. . .	Anthracite. . .	97.0 " " " "	Bituminous. . .	104.5 " " " "	Naphtha. . .	1,949	12,425,041
Arlington. . .	Improved Lowe. . .	Anthracite. . .	1,063.0 " " " "	Bituminous. . .	241.0 " " " "	Gas oil. . .	20,446	43,709,400
Athol. . .	Lowe-Granger. . .	Anthracite. . .	279.0 " " " "	— ^a . . .	— . . .	Gas oil. . .	165,643	10,008,520
Boston. . .	Improved Lowe, Jerzmanowski. . .	Coke. . .	56,975.3 " " " "	Coal. . .	916.9 " " " "	Gas oil. . .	43,352	3,052,048,000
				Coke. . .	6,324.7 " " " "		12,172,907	
				Tar. . .	1,250,730.0 gals., . .			
Brockton. . .	Improved Lowe. . .	Anthracite. . .	1,155.0 " " " "	Bituminous. . .	913.0 tons. . .	Naphtha. . .	732,017	186,273,700
		Coke. . .	1,411.0 " " " "	— ^a . . .	— . . .		933,414	224,858,000
Cambridge. . .	Lowe. . .	Anthracite. . .	841.0 " " " "	Bituminous. . .	172.0 " " " "	Gas oil. . .	92,561	21,313,000
Clinton. . .	Improved Lowe. . .	Coke. . .	3,091.8 " " " "	Coke. . .	1,135.9 " " " "	Gas oil. . .	248,879	52,979,000
East Boston. . .	Improved Lowe. . .	Anthracite. . .	579.0 " " " "	Bituminous. . .	20,300.0 gals., . .			
		Coke. . .	1,037.2 " " " "	Tar. . .	2,105.0 tons. . .			
				Screenings. . .	508.0 " " " "			
Fall River. . .	Lowe. . .	Anthracite. . .	7,072.0 " " " "	Coke. . .	36.0 " " " "	Gas oil. . .	2,094,288	557,625,100
				Tar. . .	143,638.0 gals., . .			
Fitchburg. . .	Lowe. . .	Anthracite. . .	142.1 " " " "	— ^a . . .	— . . .	Gas oil. . .	236,363	57,955,000
		Coke. . .	828.9 " " " "	Bituminous. . .	130.3 tons. . .	Benzol. . .	1,229	— ^a
Gardner. . .	Lowe. . .	Anthracite. . .	303.5 " " " "	Coke. . .	5.0 " " " "	Fuel oil. . .	7,264	— ^a
Gloucester. . .	Improved Lowe. . .	Coke. . .	19.0 " " " "	Bituminous. . .	125.5 " " " "	Gas oil. . .	2,934	731,000
Greenfield. . .	Improved Lowe. . .	Anthracite. . .	513.0 " " " "	Anthracite. . .	81.6 " " " "	Gas oil. . .	81,966	20,524,700
Haverhill. . .	Lowe. . .	Coke. . .	158.1 " " " "	Bituminous. . .	1,625.8 " " " "	Gas oil. . .	924,890	230,587,000
		Anthracite. . .	3,268.9 " " " "	Tar. . .	166,433.0 gals., . .			

^a For nine months.

^a Steam from electric department.

^a Steam from coal-gas department.

^a No record.

^a For two weeks only.

TABLE 8. — *Water Gas* — Concluded.

COMPANY.	Process used.	Materials used in Generator.	Quantity used.	Materials used for Making Steam.	Quantity used.	Enricher used.	Quantity used.	Water Gas made.
Ipswich, .	Kendall, .	Naphtha, .	35,400.0 gals., .	Bituminous, .	42.5 tons, .	-	Gallons, .	Feet.
Lawrence, .	Improved Lowe, .	Coke, .	3,530.7 tons, .	Coke, .	963.6 " .	Gas oil, .	828,881	3,283,500
Leominster, .	Improved Lowe, .	Anthracite, .	687.0 " .	Bituminous, .	180.0 " .	Gas oil, .	131,068	215,840,840
Lowell, .	Improved Lowe, .	Coke, .	359.7 " .	Coal, .	15.3 " .	Gas oil, .	892,125	31,104,000
Lynn, .	Improved Lowe, .	Coke, .	9,859.0 " .	Tar, .	3,681.5 " .	Gas oil, .	211,960,000	
Malden, .	Lowe, .	Coal, .	25.2 " .	Coke, .	159,417.0 gals., .	Gas oil, .	1,551,596	391,531,040
New Bedford, .	Improved Lowe, .	Coke, .	4,576.4 " .	Tar, .	10,597.0 tons, .	Gas oil, .	1,115,758	316,653,000
North Adams, .	Improved Lowe, .	Coal, .	2,297.3 " .	Breeze, .	1,250.1 tons, .	Benzol, .	5	
Northampton, .	Improved Lowe, .	Anthracite, .	2,514.5 " .	Bituminous, .	48.6 " .	Gas oil, .	1,117,711	246,512,791
Pittsfield, .	Lowe, .	Coke, .	41.0 " .	Coke, .	60.9 " .	Gas oil, .	9,290	2,453,700
Salem, .	Lowe, .	Coke, .	610.0 " .	-	1,669.8 " .	Gas oil, .	119,127	34,222,900
Spencer, .	Improved Lowe, .	Coke, .	1,832.7 " .	Bituminous, .	400.0 " .	Gas oil, .	395,928	89,709,900
Springfield, .	Improved Lowe, .	Anthracite, .	148.0 " .	Coke, .	351.0 " .	Gas oil, .	32,860	* 7,663,802
Vineyard Lighting (Oak Bluffs), .	Improved Lowe, .	Anthracite, .	589.0 " .	Bituminous, .	322.0 " .	Gas oil, .	107,632	26,074,100
Webster, .	Improved Lowe, .	Coke, .	166.0 " .	Coke, .	5,273.0 " .	Gas oil, .	1,355,543	385,243,000
Worcester County, .	Western Gas Construction, .	Anthracite, .	178.0 " .	-	-	Gas oil, .	7,658	1,783,760
Worcester, .	Lowe, .	Anthracite, .	852.0 " .	-	-	Gas oil, .	150,877	34,133,196
		Anthracite, .	149.0 " .	Bituminous, .	129.0 " .	Gas oil, .	23,042	* 4,700,700
		Anthracite, .	230.0 " .	Bituminous, .	3,131.1 " .	Naphtha, .	2,978	
		Coke, .	3,735.8 " .	Bituminous, .		Gas oil, .	1,270,336	302,749,000

* For six months.

* For one month.

! Steam from electric department.

TABLE 9. — *Oil Gas.*

Table 9 shows the materials and quantity of each used in the production of oil gas.

COMPANY.	Materials used.	Quantity used (Gallons).	Fuel used.	Quantity used.
Amherst, ¹	Gas oil, .	— ²	Coke, .	12.9 tons.
Edison (Brockton), .	Gas oil, .	19,333	Bituminous, .	52.2 tons.
Lexington, ³	Gas oil, .	3,640	Anthracite, .	42.0 tons.

¹ For three months only. ² Included in water-gas quantities. ³ For five months and a half.

TABLE 10.

The following table shows the quantity of carbide used by each of the acetylene-gas companies for the year ending June 30, 1911: —

COMPANY.	Quantity used (Pounds).	COMPANY.	Quantity used (Pounds).
Atwood, L. Sidney (Chatham),	9,600	Marion,	100,900
Barre,	45,000	Northfield,	10,600
Barnardston,	9,950	Sadler, T. G. (South Attleborough),	28,400
Cotuit,	17,900	South Hadley,	33,900
Georgetown,	16,100	Sunderland,	5,500
Gregory, J. D. (Princeton),	5,400	Vineyard Haven,	67,550
Hadley,	6,050	Waite & Smith (South Dartmouth),	6,900
Hatfield,	21,800		
Hyannis,	51,400		

TABLE 11. — *Street Mains.*

During the year sixty companies laid about two hundred and eight miles of mains, varying in the several cases from two hundred and seventy-five feet to about fourteen and one-half miles.

The following table shows the lengths and sizes of the mains in use as returned by the companies: —

COMPANY.	DIAMETER IN INCHES.																	Total Length in Feet.	LENGTH IN MILES AND FART.		In-crease during Year (Feet).	
	1 to 1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36	42					
Adams, . . .	17,611	12,004	—	8,439	32,497	9,586	398	—	—	—	—	—	—	—	—	—	—	—	80,535	15	1,335	1,659
Aenebury, . .	81,635	24,447	—	64,838	22,079	4,431	500	2,660	215	—	—	—	—	—	—	—	—	—	200,825	38	1,185	6,027
Amherst, . . .	9,456	14,501	—	18,194	7,656	1,836	5,162	—	—	—	—	—	—	—	—	—	—	—	56,805	10	4,005	26,974
Arlington, . .	8,214	24,620	—	86,327	90,790	46,052	15,489	382	—	—	—	—	—	—	—	—	—	—	272,783	61	3,503	47,498
Attleboro, . .	3,295	1,225	200	17,575	44,828	34,854	1,876	486	229	—	—	—	—	—	—	—	—	—	104,566	19	4,246	8,881
Attleboro, . .	3,689	10,220	—	5,876	8,740	5,093	2,656	1,490	—	—	—	—	—	—	—	—	—	—	37,764	7	804	4,631
Attwood, L. S. (Chatham), . . .	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	700	—	700	—
Barre, . . .	11,000	4,000	1,800	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,400	3	1,560	—
Barnardston, .	2,846	3,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,946	1	666	—
Beverly, . . .	1,064	14,713	—	15,973	100,624	32,447	21,043	—	—	—	—	—	—	—	—	—	—	—	185,864	25	1,064	14,353
Blackstone, .	—	1,239	—	2,435	3,110	7,893	—	—	—	—	—	—	—	—	—	—	—	—	14,667	2	4,107	2,278
Boston, . . .	72,326	82,153	3,666	852,962	1,435,189	1,368,556	246,052	61,962	326,377	924	31,320	24,613	75,138	80,767	85,490	73,077	12,997	—	4,841,152	916	4,072	77,543
Brookton, . .	236,404	31,988	—	70,099	133,189	83,950	56,308	100	14,464	—	—	—	6,400	—	—	—	—	—	631,902	119	3,562	17,804
Cambridge, . .	6,880	10,480	33	257,326	233,559	149,823	39,119	3,334	78,976	—	26,504	—	8,013	20,114	2,198	989	—	—	836,357	158	2,117	27,545
Charlestown, .	1,178	12,575	—	139,099	81,247	32,568	15,630	7,619	18,396	301	15	—	11	3,135	—	—	—	—	311,694	59	174	3,336
Chicopee, . . .	22,873	43,012	12,200	59,583	74,546	29,420	3,375	6,562	3,440	—	—	—	—	—	—	—	—	—	255,011	48	1,571	14,406
Citizens' (Nantucket), .	—	7,777	—	2,640	—	500	—	—	—	—	—	—	—	—	—	—	—	—	10,917	3	357	604
Citizens' (Quincy), .	10,586	27,399	—	24,726	182,736	90,000	30,079	62,612	—	—	—	1,061	—	—	—	—	—	—	435,199	82	2,239	58,951
Clinton, . . .	13,603	12,504	16	24,623	28,141	998	1,640	88	420	534	—	—	—	—	—	—	—	—	83,503	15	4,303	3,028
Cotuit, . . .	2,181	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,181	—	2,181	—
Danvers, . . .	3,819	17,149	—	9,223	28,856	8,226	8,960	—	—	—	—	—	—	—	—	—	—	—	73,433	13	4,793	4,016
Dedham, . . .	4,793	37,802	—	47,640	62,201	33,223	1,607	22,000	2,842	—	—	—	—	—	—	—	—	—	212,808	40	1,068	10,162
East Boston, .	4,794	8,468	238	72,317	153,375	67,902	31,821	17,451	16,315	—	931	—	709	—	—	—	—	—	374,371	70	4,771	18,985
Easthampton, .	1,156	17,567	—	24,074	17,236	2,520	700	—	—	—	—	—	—	—	—	—	—	—	63,253	51	5,173	7,761
Essex (Brookton), .	8,823	13,940	1,500	2,500	1,000	—	—	—	—	—	—	—	—	—	—	—	—	—	27,763	6	1,363	—

Fall River.	18,553	44,981	37,383	270,788	139,670	64,515	5,305	28,905	-	20,445	-	1,475	0.022	-	637,402	120	3,802	19,391
Fitchburg.	5,210	15,819	50,910	173,995	32,012	12,694	2,000	1,690	-	853	-	3,392	-	-	298,575	56	2,895	20,533
Framingham.	4,272	32,578	2,093	34,984	10,922	2,548	1,920	-	-	-	-	-	-	-	80,911	17	151	5,044
Gardner.	2,168	30,150	16,900	11,297	16,549	1,948	825	84	-	-	-	-	-	-	79,631	15	421	1,299
Georgetown.	2,800	7,830	2,038	640	-	-	-	-	-	-	-	-	-	-	13,008	2	2,448	-
Gloucester.	8,860	12,636	466	30,083	55,519	8,672	1,610	8,072	30	-	-	-	-	-	177,613	33	3,273	6,342
Greenfield.	7,522	19,349	45,766	58,679	6,763	400	1,847	-	-	-	-	-	-	-	140,556	26	3,276	5,890
Gregory, J.D. (Prince- ton).	2,279	-	-	-	-	-	-	-	-	-	-	-	-	-	2,279	-	2,279	275
Hadley.	200	1,915	-	-	-	-	-	-	-	-	-	-	-	-	2,115	-	2,115	-
Hatfield.	1,800	15,600	500	100	-	-	-	-	-	-	-	-	-	-	18,000	3	2,160	-
Haverhill.	15,003	24,950	2,424	100,140	91,997	2,043	26,842	1,534	-	0,801	-	1,902	-	-	* 90,482	68	1,442	29,524
Hyannis.	5,640	2,000	-	-	-	-	-	-	-	-	-	-	-	-	7,640	1	2,360	-
Ipswich.	4,814	12,530	3,808	2,469	-	1,973	152	-	-	-	-	-	-	-	25,746	4	4,626	335
Lawrence.	-	33,355	2,130	145,481	368,206	176,645	80,879	23,473	27,419	-	3,258	-	432	-	861,278	103	638	49,241
Leominster.	1,400	8,256	1,320	25,169	100,395	7,050	9,254	116	-	-	-	-	-	-	153,560	29	440	33,865
Lexington.	-	10,975	1,850	2,050	21,001	1,860	450	-	-	-	-	-	-	-	38,186	7	1,226	16,451
Lewell.	43,578	248,552	2,482	58,200	271,726	174,239	31,874	32,987	45,178	1,000	7,605	1,575	4,275	-	* 929,238	175	5,238	46,247
Lynn.	9,173	42,007	13,258	33,079	321,365	338,785	69,119	10,437	14,440	412	12,636	13,432	2,500	-	880,643	166	4,163	63,172
Malden.	11,879	18,960	-	143,999	390,779	251,172	18,086	29,472	33,682	-	28,636	929	5,067	-	932,681	176	3,381	38,392
Marion.	61,394	2,343	457	750	-	-	-	-	-	-	-	-	-	-	64,944	12	1,354	1,214
Marlborough-Hudson.	90,982	65,517	296	14,124	58,174	5,930	3,100	250	-	-	-	-	-	-	245,373	46	3,483	4,681
Milford.	6,195	13,737	-	11,570	14,260	13,000	3,200	-	-	-	-	-	-	-	61,962	11	3,882	7,357
Natick.	5,416	16,512	32,463	5,566	2,400	-	-	-	-	-	-	-	-	-	62,357	11	4,277	2,466
New Bedford.	29,679	6,243	185,966	229,374	65,686	24,564	-	28,010	-	-	3,136	640	-	-	573,298	108	3,058	58,912
Newburyport.	10,594	37,273	33,962	31,496	25,576	1,620	4,290	-	-	-	-	-	-	-	144,781	27	2,221	11,674
Newton.	2,288	8,044	-	258,472	505,511	121,256	46,990	63,258	4,751	-	-	-	-	-	1,010,300	191	1,820	35,212
North Adams.	2,978	16,664	211	63,406	58,766	23,579	1,025	1,959	-	764	-	-	-	-	169,352	32	392	5,558
Northampton.	20,370	1,466	-	78,337	80,622	7,580	1,420	60	733	320	-	-	-	-	190,908	36	825	2,357
North Attleborough.	1,449	17,080	149	31,925	29,648	7,108	7,018	-	1,060	-	-	-	-	-	95,444	18	4,667	13,584
Northfield.	210	3,700	-	757	-	-	-	-	-	-	-	-	-	-	101,110	19	780	2,655
Norwood.	31,640	22,150	-	33,425	8,939	-	4,956	-	-	-	-	-	-	-	37,919	7	950	714
Otis Co. (Ware).	3,739	20,595	-	2,676	6,546	2,549	1,814	-	-	-	-	-	-	-	-	-	-	-

* Includes 642 feet of forty-eight inch main and 941 feet of fifty-four inch main.

† Includes 936 feet of five inch main.

‡ Includes 294 feet of three and one-half inch main.

§ Includes 341 feet of four and one-half inch main.

TABLE 11. — *Street Mains* — Concluded.

COMPANY.	DIAMETER IN INCHES.																Total Length in Feet.	LENGTH IN MILES AND FEET.		In-crease during Year (Feet).	
	1 to 1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36		42	Miles		Feet.
People's (Stoneham),	555	3,396	—	19,490	13,448	15,612	10,390	—	—	—	—	—	—	—	—	—	—	—	11	4,811	10,181
Pittsfield,	35,107	39,320	2,001	14,997	157,438	34,869	20,774	4,068	3,663	—	3,414	—	—	—	—	—	—	—	69	3,851	30,488
Plymouth,	323	4,247	—	19,200	17,462	10,166	—	—	—	—	—	—	—	—	—	—	—	—	9	3,878	7,143
Sadler, T. G. (South Attleborough),	3,300	700	—	47,781	—	68,664	10,167	7,749	5,738	—	—	—	—	—	—	—	—	—	—	4,000	—
Salem,	3,844	34,681	—	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	69	3,089	19,922
South Hadley,	4,268	6,251	—	300	—	5,018	—	—	—	—	—	—	—	—	—	—	—	—	10,539	2	279
Spencer,	4,817	32,596	—	16,634	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	982	960
Springfield,	4,204	13,952	—	126,733	389,715	296,479	38,312	42,172	15,911	—	29,518	3,526	6,900	2,799	—	—	—	—	183	1,991	27,039
Suburban (Revere),	2,138	14,805	—	675	165,446	74,532	17,308	35,370	—	—	1,722	81	1,370	—	—	—	—	—	69	2,427	31,269
Sunderland,	2,800	2,800	900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1,230	—
Taunton,	40,449	16,133	—	77,023	111,141	82,670	18,247	1,366	9,899	6,538	—	—	—	—	—	—	—	—	68	4,416	34,229
Vineyard Haven,	9,649	5,684	—	1,030	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	523	—
Vineyard Lighting (Oak Bluffs),	431	105	—	2,532	6,584	2,002	975	—	—	—	—	—	—	—	—	—	—	—	2	2,069	—
Waite & Smith (South Dartmouth),	—	1,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,200	—
Weber,	3,918	4,970	755	73,222	23,373	16,322	—	—	—	—	—	—	—	—	—	—	—	—	32	2,080	6,097
Williamstown,	19,882	18,960	—	15,665	10,116	311	—	960	—	—	—	—	—	—	—	—	—	—	23	1,574	1,297
Woburn,	5,525	14,691	—	20,830	6,102	1,900	3,430	—	—	—	—	—	—	—	—	—	—	—	9	4,968	2,371
Worcester County,	143,017	51,263	—	175,672	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	352	50,908
Worcester,	6,647	63,462	—	209,109	319,626	161,790	66,800	16,129	6,552	3,164	5,107	6,027	19,410	7,117	—	—	—	—	168	4,200	37,043

TABLE 12. — *Meters.*

The total number of meters in use June 30, 1911, was 483,006, representing a nominal capacity of 2,576,011 lights, being an increase over the previous year of 36,080 meters of a rated capacity of 197,274 lights. Of the total number 115,956 are prepayment meters, an increase of 4,637 during the year. This type of meter is in use by 55 of the companies.

The following table shows the details concerning numbers and sizes: —

COMPANY.	NUMBERS AND SIZE OF METERS.															Total Number in Use during June 30, 1911.	In-crease during the Year.					
	2 Light.	3 Light.	5 Light.	10 Light.	20 Light.	30 Light.	35 Light.	40 Light.	45 Light.	50 Light.	60 Light.	80 Light.	100 Light.	120 Light.	150 Light.			180 Light.	200 Light.	250 Light.	300 Light.	400 Light.
Adams,	—	932	241	11	9	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Amesbury,	25	1,062	26	23	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Amherst,	—	111	11	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arlington,	—	1,568	983	60	16	4	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Attol,	—	368	45	15	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Attleboro,	49	2,066	245	36	42	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atwood, L. S. (Chatham),	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barre,	—	44	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barnardston,	—	18	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beverly,	—	1,499	1,507	54	15	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blackstone,	3	107	102	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston,	3	50,580	61,978	15,062	4,438	1,704	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brookton,	18	3,439	7,411	193	76	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cambridge,	14	19,740	7,452	630	269	120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Charlestown,	3	9,508	457	251	60	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicopee,	—	2,297	1,374	30	12	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Citizens (Nantucket),	—	340	23	6	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Citizens (Quincy),	—	1,326	3,049	41	26	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Clinton,	2	878	72	29	11	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotuit,	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Danvers,	—	492	163	12	3	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dedham,	—	1,451	1,020	19	13	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

1 Decrease.

2 Includes two 70-light meters.

TABLE 12. — *Meters* — Concluded.

COMPANY.	NUMBER AND SIZE OF METERS.																							Total Number in Use June 30, 1911.	In- crease during the Year.
	2 Light.	3 Light.	5 Light.	10 Light.	20 Light.	30 Light.	35 Light.	40 Light.	45 Light.	50 Light.	60 Light.	60 Light.	80 Light.	100 Light.	120 Light.	125 Light.	150 Light.	180 Light.	200 Light.	250 Light.	300 Light.	400 Light.	500 Light.		
East Boston,	128	5,937	7,511	159	88	31	-	-	-	11	21	6	7	11	1	2	2	1	1	3	-	-	-	13,919	1,377
Easthampton,	-	971	28	12	10	5	-	-	-	4	1	2	2	1	-	-	-	-	-	-	-	-	-	1,036	173
Edison (Brookton),	-	184	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	4
Fall River,	-	1,717	19,014	358	149	101	-	-	37	12	21	21	2	6	-	7	-	11	7	9	2	1	-	21,452	912
Fitchburg,	-	3,483	1,702	87	37	29	-	-	-	14	8	8	2	8	-	1	-	1	1	-	-	-	-	5,372	579
Framingham,	-	975	234	79	14	5	-	-	-	2	-	-	-	1	-	-	-	1	-	-	-	-	-	1,312	104
Gardner,	5	394	147	25	7	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	579	38
Georgetown,	-	47	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-
Gloucester,	1	2,144	476	118	69	21	-	-	-	19	2	2	5	1	-	-	-	-	-	-	-	-	-	2,856	135
Greenfield,	-	933	402	35	16	4	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1,392	161
Gregory, J. D. (Princeton), . .	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	2
Hadley,	-	10	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-
Hatfield,	-	31	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-
Haverhill,	-	6,366	1,745	192	122	34	-	-	2	28	-	-	4	14	-	7	-	4	1	-	-	-	-	8,519	704
Hyannis,	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	61	6
Ipswich,	16	181	25	17	6	3	-	-	-	1	-	-	-	1	-	-	-	-	-	20	-	-	-	250	20
Lawrence,	181	2,274	16,938	300	193	125	-	-	-	48	8	8	19	32	-	7	-	5	1	9	-	-	-	20,140	1,377
Leominster,	-	1,388	508	27	8	9	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	1,943	215
Lexington,	-	95	66	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	30
Lewiston,	10	10,026	10,170	563	192	173	-	-	-	155	5	5	47	95	-	39	-	16	4	-	-	-	-	21,495	918
Lowell,	-	4,080	20,612	480	292	32	-	-	1	28	9	6	5	53	-	1	-	9	-	-	-	-	-	25,603	2,190
Lynn,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malden,	-	6,983	12,891	199	85	42	-	-	1	37	2	2	9	8	-	3	-	1	1	-	-	-	-	20,263	1,916
Marion,	-	94	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	4
Marlborough-Hudson,	-	2,232	108	32	13	2	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2,390	255
Milford,	21	769	150	31	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	994	91

[illegible]

Decrease:

TABLE 13. — *Gas Stoves and Engines.*

In the following table, designed to show the number of gas stoves and engines supplied by the several companies on June 30, 1911, the figures given are as stated in the annual returns.

COMPANY.	Gas Stoves.	Gas Engines.
Adams,	851	—
Amesbury,	629	1
Amherst,	51	—
Arlington,	2,212	3
Athol,	179	3
Attleborough,	1,000	1
Barre,	16	—
Beverly,	1,462	—
Blackstone,	96	—
Boston,	— ¹	286
Brockton,	6,842	14
Cambridge,	— ¹	— ¹
Charlestown,	— ¹	28
Chicopee,	1,623	18
Citizens' (Nantucket),	98	2
Citizens' (Quincy),	2,553	7
Clinton,	574	3
Cotuit,	3	—
Danvers,	468	—
Dedham,	2,646	9
East Boston,	3,735	36
Easthampton,	434	—
Edison (Brockton),	110	—
Fall River,	23,908	51
Fitchburg,	4,371	—
Framingham,	1,144	3
Gardner,	480	2
Georgetown,	2	—
Gloucester,	1,820	20
Greenfield,	1,007	—
Hatfield,	8	—
Haverhill,	7,451	28
Hyannis,	2	—
Ipswich,	141	1
Lawrence,	21,266	27
Leominster,	1,473	1
Lexington,	90	1
Lowell,	13,989	58
Lynn,	33,651	20
Malden,	10,645	46
Marion,	20	—
Marlborough-Hudson,	2,312	—
Milford,	226	3
Natick,	— ¹	6
New Bedford,	15,026	36
Newburyport,	1,288	—
Newton,	8,993	27
North Adams,	3,025	—

TABLE 13. — *Gas Stoves and Engines* — Concluded.

COMPANY.	Gas Stoves.	Gas Engines.
Northampton,	2,461	3
North Attleborough,	551	3
Norwood,	582	2
Otis Co. (Ware),	432	1
People's (Stoneham),	— ¹	— ¹
Pittsfield,	4,282	4
Plymouth,	720	—
Sadler, T. G. (South Attleborough),	20	—
Salem,	4,576	—
South Hadley,	14	—
Spencer,	294	5
Springfield,	20,432	44
Suburban (Revere),	4,975	1
Sunderland,	1	—
Taunton,	3,645	15
Vineyard Haven,	15	—
Vineyard Lighting (Oak Bluffs),	82	—
Webster,	2,220	—
Williamstown,	264	2
Woburn,	258	2
Worcester County,	811	3
Worcester,	13,500	—

¹ Unknown.

TABLE 14. — *Public Gas Lamps.*

The following table shows the number of street lamps supplied June 30, 1911, the net increase or decrease during the year, the average price per thousand feet received from gas used in such lamps, and the cost per thousand feet for the care of the lamps where this is done by the companies: —

COMPANY.	Number of Lamps supplied.	Increase.	Decrease.	Price received per M. including Expenses.	Expense of Lighting and Care of Lamps per M.
Barre, . . .	57	14	—	\$19 41	\$11 83
Boston, . . .	11,606	184	—	525	—
Cambridge, . . .	394	11	—	85	—
Charlestown, . . .	520	—	12	86	—
Citizens' (Nantucket), . . .	1	—	—	2 00	—
Citizens' (Quincy), . . .	213	5	—	1 09	06
Cotuit, . . .	5	5	—	30 00	25 22
Dedham, . . .	18	—	30	1 00	02
East Boston, . . .	917	365	—	791	017
Fall River, . . .	471	29	—	83	—
Gardner, . . .	117	1	—	2 77	1 68
Gloucester, . . .	116	1	—	1 00	—
Haverhill, . . .	471	43	—	1 69	92
Hyannis, . . .	32	—	23	30 00	8 01
Lawrence, . . .	96	19	—	888	18
Lowell, . . .	1,534	15	—	1 76	1 00
Marion, . . .	158	1	—	21 33	3 59
Natick, . . .	118	1	—	1 37	11
New Bedford, . . .	1,122	31	—	2 32	1 51
Newton, . . .	1,064	10	—	1 63	83
Otis Co. (Ware), . . .	1	—	—	1 50	—
South Hadley, . . .	49	—	—	14 42	5 45
Springfield, . . .	136	11	—	879	83
Vineyard Haven, . . .	48	—	—	17 45	61
Vineyard (Oak Bluffs), . . .	1	—	—	1 18	—
Webster, . . .	1	—	—	1 49	—
Worcester County, . . .	91	—	—	4 45	3 25
Worcester, . . .	576	3	—	77	—

TABLE 15. — *Analysis of Income and Expenditure of the Larger Companies.*

The following tables give an analysis, on the unit basis of 1,000 feet of gas, of the income, expenditures and surplus earnings of all the gas companies making or selling more than 100 million feet of gas during the year, as stated by the companies in their returns. Of these companies, the Charlestown Gas and Electric Company, Lawrence Gas Company, Lynn Gas and Electric Company, New Bedford Gas and Edison Light Company sell electricity as well as gas; consequently, the total income, depreciation, dividends, interest, other general expenses and undivided earnings cannot fairly be stated on the gas unit basis. The analysis of the expenses of manufacturing is stated on the basis of the gas made. This basis is adopted in deference to the provisions of section 3 of chapter 422 of the Acts of 1906, requiring the annual publication of certain similar information relating to the Boston Consolidated Gas Company. The table printed on page 229 *a* gives the amount of capital of each of these companies per 1,000 feet of gas sold; and the tables on pages 223 *a* and 229 *a* give the respective amounts of gas made, bought and sold during the year.

1. INCOME.

No. of Company.	COMPANY.	GAS INCOME.					TOTAL INCOME.		Income from Sources other than Gas Business, including Net Income from Electric Business.	TOTAL INCOME FOR YEAR.		No. of Company.
		From Private Consumers.	From Public Lamps.	From Other Companies.	From Residuals.	From Other Sources.	Amount.	Per M sold.		Amount.	Per M sold.	
1	Boston.	\$3,521,934 88	\$110,544 35	\$298,352 98	\$27,010 72	\$22,714 09	—	—	—	\$3,980,557 02	\$0.75370 1	1
2	Brockton.	234,120 21	—	—	2,737 26	1,737 18	—	—	—	238,594 65	1.12080 2	2
3	Cambridge.	608,319 84	3,806 83	452 88	68,188 24	3,853 20	—	—	—	684,620 99	1.95470 3	3
4	Charlestown.	216,089 54	5,244 59	—	56,507 19	3,534 41	\$277,841 32	\$1.08830	\$18,270 49	296,111 81	.90902 5	4
5	East Boston.	275,632 53	9,887 08	6,732 97	12,473 04	3,064 11	—	—	—	308,668 77	.85901 6	5
6	Fall River.	443,897 98	4,871 77	—	4,300 25	9,334 78	—	—	—	456,134 11	.97453 7	6
7	Haverhill.	193,054 14	6,306 19	—	—	1,901 18	433,370 92	.98182	105,761 90	539,132 82	—	7
8	Lawrence.	397,646 44	1,615 69	—	32,207 61	19,276 71	—	—	—	644,309 91	1.10150 9	8
9	Lowell.	508,830 42	33,687 29	—	82,515 49	4,010 07	559,522 65	.83865	222,760 74	782,283 39	—	9
10	Lynn.	520,681 82	—	—	34,830 76	5,196 73	452,469 63	—	—	452,469 63	.91833 11	10
11	Malden.	382,016 47	—	43,526 30	21,730 13	3,297 12	416,612 72	.95158	106,612 77	523,225 49	—	11
12	New Bedford.	344,391 37	{ 12,995 44 30,896 74 }	—	25,032 05	28,872 01	379,259 02	—	—	379,259 02	1.01730 13	12
13	Newton.	341,927 79	8,374 24	—	84 98	4,409 08	—	—	—	151,416 18	1.18870 14	13
14	Pittsfield.	144,703 79	—	—	2,303 31	1,986 18	—	—	—	207,649 29	1.31760 15	14
15	Salem.	174,452 91	—	—	31,210 20	12,152 12	—	—	—	578,717 90	.90587 16	15
16	Springfield.	499,683 61	2,774 76	26,449 97	37,657 44	4,515 75	—	—	—	117,559 43	1.04220 17	16
17	Suburban.	113,043 68	—	—	—	965 39	—	—	—	141,611 69	1.18090 18	17
18	Taunton.	118,380 23	—	—	22,266 07	1,794 07	—	—	—	629,233 48	.86675 19	18
19	Worcester.	579,441 79	5,242 56	—	42,755 06	—	—	—	—	—	—	19

: Naphtha.

: Gas.

2. OPERATING EXPENSES.
(a) Expenses of Manufacture.

No. of Company.	COMPANY.	COAL.		ENRICHERS.		PURIFIERS.		WATER.		No. of Company.
		Amount.	Per M made.	Amount.	Per M made.	Amount.	Per M made.	Amount.	Per M made.	
1	Boston, .	\$210,522 69	\$0.06898	\$361,842 27	\$0.11856	\$11,217 02	\$0.00367	\$4,877 96	\$0.00160	1
2	Brockton, .	45,281 45	.18549	20,819 59	.08529	2,803 48	.01148	1,672 92	.00685	2
3	Cambridge, .	166,870 47	.21742	24,474 86	.03189	1,497 43	.00195	2,381 08	.00310	3
4	Charlestown, .	95,161 61	.32978	-	-	269 76	.00094	1,196 40	.00415	4
5	East Boston, .	27,490 29	.20697	6,844 19	.05153	202 06	.00152	534 00	.00402	5
6	Fall River, .	49,908 91	.08950	67,284 78	.12066	601 34	.00108	-	-	6
7	Haverhill, .	27,817 10	.12064	27,592 25	.11966	1,092 56	.00474	884 11	.00383	7
8	Lawrence, .	107,813 06	.23031	28,387 58	.08064	1,409 30	.00301	616 59	.00132	8
9	Lowell, .	162,025 03	.26836	24,637 63	.04081	4,704 06	.00779	67 20	.00011	9
10	Lynn, .	109,417 03	.15376	43,859 34	.06163	1,068 41	.00150	2,269 72	.00319	10
11	Malden, .	73,086 53	.14424	36,823 02	.07267	1,753 06	.00346	1,191 41	.00235	11
12	New Bedford, .	78,572 48	.17080	28,134 93	.06331	994 56	.00224	1,480 88	.00333	12
13	Newton, .	-	-	-	-	-	-	-	-	13
14	Pittsfield, .	25,651 65	.19159	12,734 90	.09512	47 60	.00036	732 60	.00547	14
15	Salem, .	59,538 59	.34153	3,392 27	.01946	634 27	.00304	517 13	.00297	15
16	Springfield, .	105,736 94	.15889	47,443 99	.07129	1,476 45	.00222	394 13	.00059	16
17	Suburban, .	-	-	-	-	-	-	-	-	17
18	Taunton, .	43,288 67	.36375	816 72	.00615	686 62	.00517	-	-	18
19	Worcester, .	170,542 70	.21845	42,264 52	.06414	1,295 02	.00166	2,231 67	.00286	19

2. OPERATING EXPENSES — Continued.
 (a) Expenses of Manufacture — Continued.

No. of Company.	COMPANY.	WAGES.		REPAIRS AND MAINTENANCE.		RENEWALS.		APPARATUS AND MACHINERY.		No. of Company.
		Amount.	Per M made.	Amount.	Per M made.	Amount.	Per M made.	Amount.	Per M made.	
1	Boston, .	\$111,615 53	\$0.03657	\$54,817 15	\$0.01796	-	-	\$16,518 54	\$0.00541	1
2	Brockton, .	17,549 04	.07189	18,930 42	.08964	-	-	1,522 86	.00624	2
3	Cambridge, .	39,360 98	.05127	60,322 13	.08413	-	-	539 40	.00075	3
4	Charlestown, .	24,088 03	.08348	25,455 94	.08821	-	-	781 75	.00270	4
5	East Boston, .	18,323 01	.13795	6,743 36	.05077	-	-	354 53	.00267	5
6	Fall River, .	16,248 28	.02914	6,693 38	.01200	-	-	6,985 32	.01253	6
7	Haverhill, .	14,598 68	.06331	3,167 28	.01374	-	-	-	-	7
8	Lawrence, .	37,372 30	.07983	17,518 67	.03742	-	-	2,368 88	.00506	8
9	Lowell, .	30,878 49	.05114	20,439 85	.03386	-	-	6,148 22	.01018	9
10	Lynn, .	29,914 77	.04204	45,169 31	.06348	-	-	982 76	.00138	10
11	Malden, .	37,681 24	.07436	12,501 67	.02467	-	-	6,806 78	.01343	11
12	New Bedford, .	22,654 02	.05097	11,642 86	.02619	-	-	413 55	.00093	12
13	Newton, .	-	-	11,167 12	.02878 ¹	-	-	-	-	13
14	Pittsfield, .	12,405 25	.09265	5,453 76	.04073	-	-	283 01	.00211	14
15	Salem, .	29,494 44	.16923	8,886 09	.05098	-	-	433 27	.00249	15
16	Springfield, .	45,559 06	.06846	27,795 93	.04177	-	-	6,680 23	.01004	16
17	Suburban, .	-	-	402 65	.00347 ¹	-	-	-	-	17
18	Taunton, .	20,413 21	.15377	6,327 63	.04767	-	-	109 14	.00082	18
19	Worcester, .	31,068 46	.03979	54,435 31	.06972	-	-	-	-	19

¹ Bought.

2. OPERATING EXPENSES — Continued.
(a) Expenses of Manufacture — Concluded.

No. of Company.	COMPANY.	TOTAL COST OF MANUFACTURE.		NET COST IN HOLDER (COST LESS RESIDUALS SOLD).		GAS PURCHASED.		TOTAL NET COST OF GAS MADE AND PURCHASED IN HOLDER.		No. of Company.
		Amount.	Per M made.	Amount.	Per M made.	Amount.	Per M bought.	Amount.	Per M sold.	
1	Boston, . . .	\$771,411 16	\$0.25275	\$744,400 44	\$0.24390	\$688,199 86	\$0.28379	\$1,432,600 30	\$0.27127	1
2	Brockton, . . .	108,579 76	.44478	105,842 50	.43357	—	—	105,842 50	.50117	2
3	Cambridge, . . .	295,446 35	.38496	227,258 11	.29611	—	—	227,258 11	.31893	3
4	Charlestown, . . .	146,953 49	.50926	90,446 30	.31344	547 71	.47500	90,994 01	.35844	4
5	East Boston, . . .	60,491 44	.45543	48,018 40	.36152	84,059 50	.37998	132,077 90	.38896	5
6	Fall River, . . .	147,722 01	.26491	143,421 76	.25720	—	—	143,421 76	.27010	6
7	Haverhill, . . .	75,151 98	.32592	75,151 98	.32592	—	—	75,151 98	.35093	7
8	Lawrence, . . .	195,486 38	.41759	163,278 77	.34879	—	—	163,278 77	.36991	8
9	Lowell, . . .	248,901 48	.41225	166,385 99	.27558	—	—	166,385 99	.28444	9
10	Lynn, . . .	232,681 34	.32698	197,850 58	.27803	—	—	197,850 58	.29655	10
11	Malden, . . .	169,843 71	.33518	148,113 58	.29230	452 88	.85000	148,566 46	.30153	11
12	New Bedford, . . .	143,893 28	.32377	118,861 23	.26745	—	—	118,861 23	.27149	12
13	Newton, . . .	—	—	—	—	159,081 10	.41000	170,163 24	.45645	13
14	Pittsfield, . . .	57,308 77	.42803	55,005 46	.43182	—	—	55,005 46	.43182	14
15	Salem, . . .	102,886 06	.59029	71,675 86	.41123	—	—	71,675 86	.45480	15
16	Springfield, . . .	235,086 73	.35326	197,429 29	.29668	—	—	197,429 29	.30903	16
17	Suburban, . . .	—	—	—	—	50,759 47	.43803	51,162 12	.45357	17
18	Taunton, . . .	76,641 99	.57733	54,375 92	.40961	—	—	54,375 92	.45343	18
19	Worcester, . . .	301,837 68	.38662	259,082 62	.33186	—	—	259,082 62	.35888	19

2. OPERATING EXPENSES — Continued.
(b) Expenses of Distribution.

No. of Company.	COMPANY.	WAGES.		REPAIRS OF MAINS AND SERVICES.		REPAIRS AND RENEWALS OF METERS.		TOOLS AND APPLIANCES.		No. of Company.
		Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	
1	Boston,	\$160,553 49	\$0.03040	\$123,803 81	\$0.02344	\$73,446 63	\$0.01391	\$32,585 62	\$0.00617	1
2	Brockton,	9,225 87	.04368	3,773 60	.01787	1,140 73	.00540	13,525 15	.06404	2
3	Cambridge,	30,720 91	.04284	28,122 36	.03922	19,495 50	.02719	4,645 21	.00648	3
4	Charlestown,	13,968 77	.05472	4,942 61	.01936	3,515 22	.01377	28 38	.00011	4
5	East Boston,	20,460 69	.06026	3,178 46	.00936	6,065 21	.01786	5,192 56	.01529	5
6	Fall River,	12,732 16	.02398	20,858 71	.03928	17,365 48	.03270	5,044 44	.00950	6
7	Haverhill,	2,089 71	.00976	3,057 89	.01428	5,582 33	.02607	2,333 98	.01090	7
8	Lawrence,	5,653 80	.01281	7,107 60	.01610	16,282 11	.03689	—	—	8
9	Lowell,	26,720 19	.04568	15,902 45	.02718	12,245 28	.02083	1,907 39	.00326	9
10	Lynn,	22,524 29	.03376	18,525 47	.02777	17,957 02	.02691	6,644 64	.00996	10
11	Malden,	13,575 48	.02755	5,948 56	.01208	5,784 65	.01174	5,675 83	.01152	11
12	New Bedford,	20,240 98	.04623	2,628 35	.00800	3,539 30	.00809	647 06	.00148	12
13	Newton,	13,210 05	.03544	7,530 38	.02020	5,639 02	.01513	11,986 81	.03215	13
14	Pittsfield,	12,325 24	.09676	4,134 01	.03246	2,518 21	.01977	744 12	.00584	14
15	Salem,	7,420 50	.04709	3,727 47	.02365	3,537 70	.02245	4,078 47	.02588	15
16	Springfield,	17,087 15	.02674	4,504 73	.00705	10,815 50	.01693	14,224 76	.02227	16
17	Suburban,	2,414 19	.02140	1,781 39	.01579	861 81	.00764	2,102 95	.01864	17
18	Taunton,	7,838 35	.06536	420 41	.00351	187 37	.00156	—	—	18
19	Worcester,	17,311 26	.02384	7,847 91	.01081	20,224 19	.02786	—	—	19

2. OPERATING EXPENSES — *Continued.*
 (b) *Expenses of Distribution* — *Concluded.*

No. of Company.	COMPANY.	GAS STOVES.		PUBLIC LAMPS.		OTHER EXPENSES.		TOTAL COST OF DISTRIBUTION.		No. of Company.
		Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	
1	Boston, .	\$27,036 85	\$0.00512	-	-	-	-	\$417,426 40	\$0.07904	1
2	Brockton, .	6,080 80	.02879	\$6,514 04	\$0.03085	-	-	40,260 19	.19063	2
3	Cambridge, .	6,515 60	.00908	-	-	-	-	89,499 08	.12481	3
4	Charlestown, .	185 98	.00073	-	-	-	-	22,640 96	.08869	4
5	East Boston, .	1,281 33	.00377	217 43	.00064	-	-	36,395 98	.10718	5
6	Fall River, .	12,821 76	.02415	-	-	-	-	68,822 55	.12961	6
7	Haverhill, .	5,103 63	.02383	11,524 26	.05381	-	-	29,691 80	.13865	7
8	Lawrence, .	3,274 85	.00742	371 26	.00084	-	-	32,689 62	.07406	8
9	Lowell, .	25,691 56	.04382	19,167 29	.03277	-	-	101,634 16	.17374	9
10	Lynn, .	10,460 22	.01568	-	-	-	-	76,111 64	.11408	10
11	Malden, .	3,302 31	.00670	-	-	-	-	34,286 83	.06959	11
12	New Bedford, .	-	-	20,103 52	.04592	\$12,548 76	\$0.02866	59,707 97	.13638	12
13	Newton, .	2,048 73	.00550	8,698 52	.02833	235 93	.00063	49,349 44	.13238	13
14	Pittsfield, .	-	-	-	-	-	-	19,721 78	.16483	14
15	Salem, .	761 58	.00483	-	-	-	-	19,525 72	.12390	15
16	Springfield, .	2,670 88	.00418	2,627 13	.00411	-	-	51,930 15	.08128	16
17	Suburban, .	1,567 20	.01390	-	-	-	-	8,727 54	.07737	17
18	Taunton, .	-	-	-	-	-	-	8,446 13	.07043	18
19	Worcester, .	1,738 86	.00240	-	-	-	-	47,122 22	.06491	19

2. OPERATING EXPENSES — *Concluded.*
 (c) *Offices and Other Operating Expenses.*

No. of Company.	COMPANY.	OFFICE EXPENSES.		TAXES.		MISCELLANEOUS EXPENSES.		TOTAL COST OF MANUFACTURE, PURCHASE AND DISTRIBUTION OF GAS LESS RESIDUALS.		No. of Company.
		Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	
1	Boston, .	\$320,931 14	\$0.06077	\$390,000 00	\$0.07385	\$30,017 20	\$0.00569	\$2,590,975 04	\$0.49062	1
2	Brockton, .	14,189 95	.06719	11,374 52	.05386	3,477 56	.01646	175,144 72	.82931	2
3	Cambridge, .	38,427 03	.05359	55,360 54	.07721	10,900 02	.01520	421,444 78	.58774	3
4	Charlestown, .	12,648 46	.04954	21,426 01	.08393	2,323 16	.00910	150,032 60	.58770	4
5	East Boston, .	37,024 27	.10903	22,920 00	.06750	3,470 05	.01022	227,848 54	.67100	5
6	Fall River, .	38,137 90	.07182	42,182 57	.07944	3,655 08	.00839	296,219 86	.55786	6
7	Haverhill, .	25,793 72	.12045	13,832 42	.06459	7,561 67	.03531	152,031 59	.70993	7
8	Lawrence, .	33,566 86	.07605	39,681 64	.08990	7,393 37	.01675	276,610 26	.62667	8
9	Lowell, .	25,215 92	.04311	55,413 99	.09473	6,219 90	.01064	354,869 96	.90666	9
10	Lynn, .	18,321 66	.02746	32,431 74	.04861	8,582 44	.01287	333,298 06	.49957	10
11	Malden, .	36,038 07	.07314	37,503 53	.07612	22,094 07	.04484	278,488 96	.56522	11
12	New Bedford, .	21,556 83	.04924	34,284 65	.07831	4,050 44	.00925	238,461 12	.54467	12
13	Newton, .	40,340 97	.10821	16,500 00	.04426	5,897 52	.01582	282,251 17	.75712	13
14	Pittsfield, .	13,565 07	.10649	9,380 20	.07364	4,486 94	.03523	102,159 25	.80201	14
15	Salem, .	15,248 50	.09676	13,307 72	.08444	3,144 31	.01985	122,902 11	.77985	15
16	Springfield, .	53,214 44	.08330	39,510 64	.06185	12,479 00	.01953	354,563 53	.55499	16
17	Suburban, .	13,648 26	.12100	8,418 87	.07463	7,320 61	.06490	89,277 40	.79147	17
18	Taunton, .	8,324 83	.06942	6,053 43	.05048	1,322 25	.01103	78,522 56	.65479	18
19	Worcester, .	24,415 59	.03363	42,990 46	.05922	8,256 13	.01137	381,867 02	.52601	19

3. NET EARNINGS AND THEIR APPLICATION.

No. of Company	COMPANY.	BALANCE FROM YEAR'S OPERATION.		DEPRECIATION AND OTHER RESERVES.		OTHER EXPENSES.		No. of Company
		Amount.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	
1	Boston, .	\$1,362,571 26	\$0.25801	\$69,140 72	\$0.01309	\$81,732 66	\$0.01548	1
2	Brockton, .	60,712 67	.28477	14,000 00	.06639	464 90	.00220	2
3	Cambridge, .	194,987 97	.27193	24,249 23	.03382	4,602 41	.00642	3
4	Charlestown, .	89,572 02	-	25,700 00	.10067	280 15	-	4
5	East Boston, .	64,307 53	.18938	2,578 89	.00759	3,534 41	.01041	5
6	Fall River, .	155,614 00	.29306	50,000 00	.09416	14,783 07	.02784	6
7	Haverhill, .	56,663 52	.26460	-	-	49,256 28	.23001	7
8	Lawrence, .	230,314 96	-	10,000 00	-	2,982 05	-	8
9	Lowell, .	206,924 46	.35374	55,881 05	.09553	2,871 14	.00491	9
10	Lynn, .	414,154 57	-	48,318 52	-	4,725 65	-	10
11	Malden, .	173,980 67	.35311	13,571 87	.02164	23,251 83	.04719	11
12	New Bedford, .	246,865 48	-	34,616 06	-	1,246 42	-	12
13	Newton, .	94,152 19	.25264	3,145 69	.00844	1,807 84	.00485	13
14	Pittsfield, .	45,749 50	.35916	12,576 95	.09874	347 06	.00272	14
15	Salem, .	54,312 93	.34463	592 57	.00376	150 00	.00096	15
16	Springfield, .	180,296 42	.28231	6,674 26	.01045	14,802 31	.02317	16
17	Suburban, .	97,532 13	-	16,397 85	-	7,210 23	-	17
18	Taunton, .	40,990 46	.34181	14,720 26	.12275	107 57	.00090	18
19	Worcester, .	201,145 56	.27707	91,172 00	.12559	350 00	-	19

3. NET EARNINGS AND THEIR APPLICATION — *Concluded.*

No. of Company.	COMPANY.	DIVIDENDS.			INTEREST.		UNAPPLIED EARNINGS.		No. of Company.
		Amount.	Rate Per Cent.	Per M sold.	Amount.	Per M sold.	Amount.	Per M sold.	
1	Boston, .	\$1,361,214 00	9	\$0. 25775	\$70,649 85	\$0. 01338	\$220,165 97 ¹	-	1
2	Brockton, .	33,540 00	6	.15881	12,549 84	.05942	157 93	-	2
3	Cambridge, .	132,000 00	11	.18409	18,947 48	.02600	15,488 85	\$0. 02160	3
4	Charlestown, .	60,000 00	10	-	3,178 89	-	412 98	-	4
5	East Boston, .	57,500 00	10	.16934	860 20	.00253	165 97 ¹	-	5
6	Fall River, .	186,300 00	27	.35085	5,456 83	.00103	100,925 90	-	6
7	Haverhill, .	-	-	-	6,432 02	.03003	975 22	-	7
8	Lawrence, .	152,000 00	-	-	36,394 84	-	28,938 07	-	8
9	Lowell, .	120,000 00	12	.20514	736 87	.00013	27,435 40	.04090	9
10	Lynn, .	127,152 00	12	-	5,329 60	-	228,628 80	-	10
11	Malden, .	107,182 25	7	.21754	16,902 31	.03431	13,072 41	.02653	11
12	New Bedford, .	126,921 00	13½	-	11,925 83	-	83,392 68	-	12
13	Newton, .	67,200 00	12	.18026	4,191 55	.01124	17,837 11	.04785	13
14	Pittsfield, .	27,720 00	7	.21762	105 49	.00083	5,000 00	.03925	14
15	Salem, .	33,968 00	8	.21553	2,844 76	.01805	16,757 60	.10633	15
16	Springfield, .	131,339 50	12	.20598	17,238 77	.02698	10,241 58	.01603	16
17	Suburban, .	53,017 00	9	-	7,417 86	-	13,489 69	-	17
18	Taunton, .	19,000 00	10	.15844	931 39	.00776	6,231 24	.05196	18
19	Worcester, .	120,000 00	12	.10530	15,022 00	.02069	25,398 44 ¹	-	19

¹ Deficit.

APPENDIX E. — ELECTRIC STATISTICS.

TABLE 1. — *Financial Statistics for Year ending June 30, 1911.*

COMPANY.	Capital Stock.	Stock-HOLDERS.		Value at Par of Stock held in Massachusetts.	DIVIDENDS.	
		Whole Number.	Resident in Massachusetts.		Amount.	Rate Per Cent.
Abington and Rockland,	\$189,000	111	108	\$184,300	\$15,120 00	8
Amesbury,	70,300	27	26	69,600	3,181 66	15
Attleborough,	235,000	27	27	235,000	28,200 00	12
Ayer,	30,000	6	4	29,800	1,725 00	5½
Block Plant (Boston),	9,500	3	3	9,500	—	2—
Bridges, J. B. & Co. (So. Deerfield),	\$5,648	—	—	—	1,729 38	30½
Buzzards Bay (Falmouth),	11,000	4	4	11,000	—	2—
Cambridge,	850,000	125	116	837,500	82,500 00	10
Cape Light (Provincetown),	35,000	23	3	18,100	—	2—
Central Mass.,	150,000	6	6	150,000	—	2—
Chester,	5,000	4	4	5,000	192 00	4
Colrain,	2,500	5	5	2,500	—	2—
Deerfield River (Conway),	4,700	6	6	4,700	—	2—
Edison (Boston),	15,603,700	3,630	3,070	13,749,400	1,867,035 00	12
Fall River,	800,000	240	218	751,500	60,000 00	8
Foxborough,	16,500	5	5	16,500	—	2—
Franklin (Turners Falls),	20,000	12	12	20,000	2,000 00	10
Gardner,	170,000	85	84	169,900	7,207 00	8
Gloucester,	175,000	59	57	166,300	12,250 00	7
Great Barrington,	125,000	12	10	122,000	9,375 00	7½
Greenfield,	325,000	133	119	310,100	19,500 00	6
Haverhill,	446,800	155	102	258,200	35,744 00	8
Huntington,	5,000	4	4	5,000	500 00	10
Hyde Park,	287,500	13	13	287,500	20,125 00	7

¹ One and one-quarter per cent. on \$50,300; one and one-quarter per cent. on \$63,632.80; two and one-half per cent. on \$70,300.

² No dividend declared.

³ Unincorporated; capital invested.

⁴ Five per cent. on \$800,000; five per cent. on \$850,000.

⁵ On \$4,800.

⁶ Nine per cent. on \$15,543,600; three per cent. on \$15,603,700.

⁷ Two per cent. on \$600,000; six per cent. on \$800,000.

⁸ Four per cent. on \$65,000; four per cent. on \$85,000 common stock; also one and 1/10 per cent. on \$85,000 preferred stock.

TABLE 1. — *Financial Statistics* — Concluded.

COMPANY.	Capital Stock.	STOCK-HOLDERS.		Value at Par of Stock held in Massachusetts.	DIVIDENDS.	
		Whole Number.	Resident in Massachusetts.		Amount.	Rate Per Cent.
Lee,	\$30,000	45	41	\$26,800	\$1,500 00	5
Lenox,	20,000	27	24	13,400	1,600 00	8
Leominster,	80,000	5	3	79,800	6,400 00	8
Lowell,	1,023,000	453	426	988,500	81,840 00	8
Malden,	525,000	23	21	502,600	52,500 00	10
Manchester,	116,500	38	34	96,500	—	1—
Marlborough,	200,000	90	89	199,000	20,000 00	10
Middleton,	¹ 1,550	6	6	1,550	—	1—
Milford,	40,000	6	4	39,800	8,600 00	21½
Mill River (Williamsburg),	15,000	6	4	14,800	1,200 00	8
Montague,	² 2,000	8	8	2,000	160 00	8
Northampton,	117,400	5	3	117,200	25,828 00	22
Norton,	5,000	3	3	5,000	—	1—
Pittsfield,	375,000	131	119	355,900	18,000 00	³ 8
Plymouth,	120,000	8	8	120,000	1,800 00	1½
Quincy,	250,000	92	90	246,300	19,928 00	⁴ 8
Salem,	⁵ 275,000	10	9	274,700	22,000 00	8
Shelburne Falls,	45,000	5	5	45,000	—	1—
South Hadley Falls,	7,000	3	3	7,000	—	1—
Stockbridge,	40,000	24	24	40,000	2,400 00	6
Sunderland,	11,000	8	8	11,000	550 00	5
Union (Franklin),	20,000	6	6	20,000	—	1—
United (Springfield),	1,500,000	309	273	1,341,000	131,250 00	⁶ 10
Ware,	40,000	29	29	40,000	2,400 00	6
Westborough,	36,500	18	18	36,500	3,362 50	⁷ 10
Weston,	30,000	8	8	30,000	3,000 00	10
Weymouth,	50,000	9	9	50,000	2,000 00	⁸ 4
Winchendon,	12,000	3	3	12,000	—	1—
Worcester,	1,000,000	252	234	928,300	90,000 00	⁹ 10
Worcester Suburban,	275,000	54	53	270,000	—	1—

¹ No dividend declared.² Par value \$25.³ On \$225,000.⁴ Six per cent. on \$248,800; two per cent. on \$250,000.⁵ Par value \$50.⁶ Seven and one-half per cent. on \$1,250,000; two and one-half per cent. on \$1,500,000.⁷ Two and one-half per cent. on \$25,000; seven and one-half per cent. on \$36,500.⁸ Five per cent. on \$800,000; five per cent. on \$1,000,000.

TABLE 2.

The following table shows the value of the several electric plants as assessed by the local authorities, and the amounts paid by the companies for taxes, including in the case of gas companies only the amounts paid on account of their electric plants:—

COMPANY.	Assessed Value of Property.	Taxes.
Abington and Rockland,	\$159,725	\$4,788 69
Adams,	— ¹	629 15
Adams, U. S. (Townsend),	2,100	52 45
American Woolen (Maynard),	23,100	396 62
Amesbury,	66,100	1,141 56
Amherst,	39,950 ²	1,078 76
Athol,	— ¹	2,713 18
Attleborough,	243,000	5,364 40
Ayer,	7,775	118 95
Ballou, G. M. (Shirley),	5,500	91 40
Beverly,	— ¹	6,462 24
Blackstone,	15,000 ²	321 92
Block Plant (Boston),	—	30 08
Bridges, J. B. & Co. (South Deerfield),	2,500	30 37
Buzzards Bay (Falmouth),	9,300	91 80
Cambridge,	1,125,000	35,583 42
Cape Light (Provincetown),	34,000	810 59
Central Massachusetts,	113,925	3,440 69
Charlestown,	— ¹	3,046 60
Chester,	2,250	47 25
Citizens' (Nantucket),	20,115	296 00
Clinton,	— ¹	1,958 87
Colrain,	2,776	90 36
Deerfield River (Conway),	—	82 72
Douglas,	—	33 00
Easthampton,	148,200 ²	393 95
Edison (Boston),	20,545,000	608,595 63
Edison (Brockton),	1,016,500	35,651 98
Fall River,	1,234,250	25,078 14
Fitchburg,	560,284	12,253 94
Foxborough,	24,950	564 48
Franklin,	19,000	422 30
Gardner,	145,900	1,800 00
Gloucester,	313,656	5,884 13
Great Barrington,	60,000	1,404 94
Greenfield,	294,605	6,543 41
Haverhill,	673,000	14,980 16
Huntington,	4,000	84 13
Hyde Park,	218,650	7,257 98
Lawrence,	874,085	23,249 36
Lee,	13,800	524 85
Lenox,	6,600	339 66
Leominster,	214,185	3,339 70
Loveland, W. O. (Ashby),	3,000	49 38
Lowell,	1,059,800	37,074 71
Ludlow Manufacturing Associates,	31,120	627 73
Lynn,	1,356,525	30,739 22

¹ The electric plant not assessed separately from gas plant.

² Assessed value of electric plant only.

TABLE 2. — *Concluded.*

COMPANY.	Assessed Value of Property.	Taxes.
Malden,	\$1,032,500	\$19,905 96
Manchester,	109,000	1,000 60
Marlborough,	211,905	5,546 31
Milford,	87,000	1,263 99
Millbury,	—	35 51
Mill River (Williamsburg),	10,100	186 80
Montague,	2,200	41 80
New Bedford,	— ¹	17,142 32
Newburyport,	— ¹	3,890 69
North Adams,	— ¹	3,617 90
Northampton,	175,000	2,926 30
Norton,	1,000	20 24
Pittsfield,	388,110	6,446 33
Plymouth,	69,450	1,487 42
Quincy,	329,425	8,934 66
Randolph,	19,000	551 82
Salem,	468,400	12,870 71
Shelburne Falls,	16,800	334 68
South Hadley Falls,	14,000	343 88
Spencer,	7,400	159 74
Stockbridge,	30,000	93 00
Suburban (Revere),	408,650	11,587 87
Sunderland,	2,050	142 82
Turner, G. H. (Charlemont),	600	14 52
Tyngsborough,	3,000	37 40
Union (Franklin),	30,100	511 70
United (Springfield),	2,264,740	51,728 43
Upton,	—	30 00
Uxbridge,	—	667 60
Vineyard Lighting (Oak Bluffs),	30,600	349 20
Ware,	40,000	682 48
Webster,	183,725	2,621 56
Westborough,	30,388	414 55
Weston,	46,500	835 20
Weymouth,	127,245	1,449 61
Williamstown,	37,850	354 82
Winchendon,	24,000	552 00
Worcester,	2,107,700	34,993 00
Worcester Suburban,	140,640	955 88
	\$39,138,284	\$1,080,291 05

¹ The electric plant not assessed separately from gas plant.

TABLE 3. — *Capacity of Boilers, Engines and Dynamos.*

The following table shows the total rated horse-power of boilers and engines and the capacity of dynamos for light and power installed by the different companies on June 30 last: —

COMPANY.	Total rated Horse- power (Boilers).	Total rated Horse- power (Engines).	Total rated Horse- power (Water- wheels).	DYNAMO CAPACITY IN KILOWATTS.		
				Dynamos other than Power Genera- tors.	Power Genera- tors.	Total Dynamo Ca- pacity.
Abington and Rockland, .	740	1,080	—	885	—	885
Adams, ¹	—	—	—	—	—	—
Adams, U.S. (Townsend), .	80	50	103	35	—	35
Amer. Woolen (Maynard), .	— ²	925	—	600	—	600
Amesbury,	500	1,295	—	875	50	925
Amherst,	550	920	—	610	—	610
Athol,	620	915	1,430	1,000	440 ³	1,440
Attleborough,	1,349	3,350	—	2,339	—	2,339
Ayer,	125	225	—	165	—	165
Ballou, G. M. (Shirley), .	125	100	84	120	—	120
Beverly,	689	1,275	—	1,119	—	1,119
Blackstone, ¹	—	—	—	—	—	—
Block Plant (Boston), .	238	397	—	252 $\frac{1}{2}$	40	292 $\frac{1}{2}$
Bridges, J. B. & Co. (So. Deerfield), ¹	—	—	—	—	—	—
Buzzards Bay (Falmouth), .	200	180	—	100	—	100
Cambridge,	3,200	7,583	—	5,325	200	5,525
Cape Light (Provincetown), .	—	240 ⁴	—	165	—	165
Central Mass.,	814 ⁵	1,300 ⁶	735 ⁶	375	1,550 ⁶	1,925
Charlestown, ¹	—	—	—	—	—	—
Chester,	—	15 ⁶	52	27 $\frac{3}{10}$	—	27 $\frac{3}{10}$
Citizens' (Nantucket), . .	280	114 ⁷	—	170	—	170
Clinton,	400	875	—	555	—	555
Colrain, ¹	—	—	—	—	—	—
Deerfield River (Conway), .	— ¹	—	—	—	—	—
Easthampton,	885	1,198	—	925	—	925
Edison (Boston),	34,024	100,600	—	71,400	—	71,400
Edison (Brockton),	4,075 ⁸	8,177 ⁸	—	6,061 ¹⁰	—	6,061
Fall River,	2,100	3,333	—	2,500	—	2,500
Fitchburg,	1,250	3,100	—	2,000	—	2,000
Foxborough, ¹¹	—	—	—	—	—	—
Franklin (Turners Falls), .	— ¹	—	—	—	—	—
Gardner,	150	925 ¹²	—	500	415 ¹³	915
Gloucester,	500	1,820	—	1,450	—	1,450
Great Barrington,	150	150	339	150	72	222
Greenfield,	1,350	2,850	1,200	2,850 ¹⁴	—	2,850

¹ All current purchased.² Steam supplied from mill boilers.³ Operated by company; includes one owned by street railway company.⁴ Petroleum engine.⁵ Operated by company and owned by street railway.⁶ Gasoline engine.⁷ Includes gas engine, 114 horse-power.⁸ 125 horse-power not in use.⁹ 80 horse-power not in use.¹⁰ 51 kilowatts not in use.¹¹ Manufacturing plant dismantled on June 30.¹² Petroleum engines, 675 horse-power; 250 horse-power not in use.¹³ 75 kilowatts not in use.¹⁴ 400 kilowatts not in use.

TABLE 3. — *Capacity of Boilers, etc.* — Continued.

COMPANY.	Total rated Horse- power (Boilers).	Total rated Horse- power (Engines).	Total rated Horse- power (Water- wheels).	DYNAMO CAPACITY IN KILOWATTS.		
				Dynamos other than Power Genera- tors.	Power Genera- tors.	Total Dynamo Ca- pacity.
Haverhill,	2,150 ¹	3,500	—	2,450	—	2,450
Huntington,	125	80	—	45	—	45
Hyde Park,	1,614	3,400	—	830	1,775	2,605
Lawrence,	4,634	5,165 ²	3,175	6,216½ ³	—	6,216½
Lee,	350	300	145	410	—	410
Lenox,	— ⁴	—	—	—	—	—
Leominster,	900	1,375	—	1,075	—	1,075
Loveland, W. O. (Ashby),	60	68 ⁵	60	30	—	30
Lowell,	4,128	7,783	—	3,950	1,450	5,400
Ludlow Mfg. Associates,	—	—	214	150	—	150
Lynn,	3,100	8,300	—	5,150	62	5,212
Malden,	1,910	4,539 ⁶	—	3,650 ⁷	—	3,650
Manchester,	— ⁴	—	—	—	—	—
Marlborough,	835	1,761 ⁸	—	1,100	—	—
Middleton,	— ⁴	—	—	—	—	—
Milford,	— ⁹	150	—	350	—	350
Mill River (Williamsburg),	— ⁴	—	—	—	—	—
Montague,	—	40 ¹⁰	20	40	—	40
Nashua River (East Pep- perell),	1,500	250	—	110	—	110
New Bedford,	2,172	3,800 ¹¹	—	3,165	262	3,427
Newburyport,	600	925	—	555	—	555
Niles Estate (Boston),	400	156	—	90	—	90
North Adams,	1,560	4,625 ¹²	—	2,112	250	2,362
Northampton,	600	1,525	—	1,075	120	1,195
North Dana,	150	85	74½ ¹³	120	—	120
Norton,	— ¹⁴	—	—	60	—	60
Pittsfield,	2,090	3,000 ¹⁴	—	1,920	300	2,220
Plymouth,	550	1,000	—	720	—	720
Quincy,	1,000	1,690	—	1,250	—	1,250
Randolph,	250	570	—	470	—	470
Salem,	2,750	3,535	—	2,400	200	2,600
Shelburne Falls,	125	115 ¹⁵	—	90	—	90
South Hadley Falls,	— ¹⁶	100	—	250	—	250
Spencer,	150	100	—	90	—	90
Steam and Power (Boston),	377	330	—	200	—	200
Stockbridge,	— ⁴	—	—	—	—	—
Suburban (Revere),	1,208	2,050	—	1,400	—	1,400
Sunderland,	— ⁴	—	40 ¹⁵	35 ¹⁶	—	35
Turner, G. H. (Charle- mont),	—	—	100	35½	—	35½
Tyngsborough,	— ¹⁶	—	—	—	—	—

¹ 200 horse-power not in use.² 125 horse-power not in use.³ 210 kilowatts not in use.⁴ All current purchased.⁵ Includes gasoline engine, 18 horse-power.⁶ 375 horse-power not in use.⁷ 250 kilowatts not in use.⁸ 256 horse-power not in use.⁹ Steam purchased from street railway.¹⁰ Gasoline engine.¹¹ Includes gas engine, 500 horse-power.¹² 1,625 horse-power not in use.¹³ Steam and water-power leased.¹⁴ Includes petroleum engines, 450 horse-power.¹⁵ Not in use.¹⁶ Power supplied by A. A. Flint.

TABLE 3. — *Capacity of Boilers, etc.* — Concluded.

COMPANY.	Total rated Horse- power (Boilers).	Total rated Horse- power (Engines).	Total rated Horse- power (Water- wheels).	DYNAMO CAPACITY IN KILOWATTS.		
				Dynamos other than Power Genera- tors.	Power Genera- tors.	Total Dynamo Ca- pacity.
Union (Franklin), . .	350	225	—	181	—	181
United (Springfield), .	7,700	12,570	2,835	12,390	1,990 ¹	14,380
Vineyard Lighting (Oak Bluffs),	450	980 ²	—	597 ³	137	734
Ware,	250	350	—	250	—	250
Webster,	600	325	2,010 ⁴	1,110	—	1,110
Westborough,	200	195	—	150	—	150
Weston,	— ⁴	600	—	535	—	535
Weymouth,	800	1,950	450 ⁵	1,375	—	1,375
Williamstown,	— ⁴	—	—	—	—	—
Winchendon,	— ⁴	—	350	120	—	120
Worcester,	6,600	14,900	—	9,960	500	10,460
Worcester Suburban, .	676	956	—	1,050	555	1,605

¹ Not in use.² 450 horse-power not in use.³ 300 kilowatts not in use.⁴ Steam supplied by Weston Water Co.⁵ Leased.⁶ All current purchased.

TABLE 4. — *Line Statistics.*

The following table shows the total length of wire; the length of underground conduit, the length of wire in the same; the number of poles set and the length of streets with overhead wires of each company, on June 30, last: —

COMPANY.	Total Length of Wire (Feet).	Length of Underground Conduit (Feet).	Length of Wire in Conduit (Feet).	Number of Poles set in Streets.	Number of Poles set elsewhere.	Length of Street with Overhead Wires (Feet).
Abington and Rockland, . .	1,972,483	9,000	9,000	4,103	550	673,578
Adams,	401,447	—	—	505	204	101,400
Adams, U. S. (Townsend), .	119,383	—	—	287	10	33,958
American Woolen (Maynard),	379,522	—	—	588	72	101,287
Amesbury,	429,901	—	—	1,367	30	159,740
Amherst,	954,775	—	—	1,943	195	213,616
Athol,	1,177,122	—	—	1,669	81	280,550
Attleborough,	991,666	—	—	1,465	92	249,890
Ayer,	163,909	—	—	393	9	45,550
Ballou, G. M. (Shirley), . .	73,300	—	—	175	3	33,250
Beverly,	1,721,222	2,055	4,110	3,387	—	407,805
Blackstone,	267,122	—	—	468	17	73,450
Block Plant (Boston), . .	45,233	—	—	—	—	—
Bridges, J. B. & Co. (South Deerfield),	82,930	—	—	141	5	23,000
Buzzards Bay (Falmouth), .	280,055	—	—	551	34	78,444
Cambridge,	3,579,857	47,797	252,065	3,307	336	308,984
Cape Light (Provincetown),	189,125	—	—	257	2	35,291
Central Mass.,	1,035,808	—	—	2,246	53	275,347
Charlestown,	284,325	8,735	71,300	489	71	37,670
Chester,	41,840	—	—	58	5	13,000
Citizens' (Nantucket), . .	211,675	—	—	746	—	74,600
Clinton,	690,280	—	—	1,505	36	187,500
Colrain,	31,880	—	—	1326	—	16,500
Deerfield River (Conway), .	127,040	—	—	131	149	20,535
Easthampton,	367,831	—	—	784	122	76,862
Edison (Boston),	38,964,744	1,508,827	9,516,461	40,338	4,724	5,096,761
Edison (Brockton), . . .	3,519,817	151,140	119,354	5,877	690	1,110,000
Fall River,	3,070,805	101,780	784,305	4,161	221	495,100
Fitchburg,	1,259,924	43,585	286,465	2,504	256	259,962
Foxborough,	210,927	—	—	338	21	49,754
Franklin (Turners Falls), .	364,931	—	1,325	558	200	63,155
Gardner,	772,498	—	—	980	361	108,663
Gloucester,	1,373,300	16,100	16,100	4,167	312	865,000
Great Barrington,	843,378	—	—	1,030	305	203,064
Greenfield,	1,682,077	—	—	2,882	225	426,016
Haverhill,	1,461,778	16,548	159,495	1,250	53	310,829
Huntington,	17,710	245	245	90	1	8,457
Hyde Park,	900,202	—	—	1,465	112	151,083
Lawrence,	3,776,608	21,198	99,567	6,279	179	679,815
Lee,	490,240	—	—	938	60	122,356
Lenox,	65,765	64,859	65,765	—	—	—
Leominster,	806,712	—	—	1,386	60	210,471

¹ Not owned by the company.

² Pick proof armored cable.

TABLE 4. — *Line Statistics* — Concluded.

COMPANY.	Total Length of Wire (Feet).	Length of Underground Conduit (Feet).	Length of Wires in Conduit (Feet).	Number of Poles set in Streets.	Number of Poles set elsewhere.	Length of Street with Overhead Wires (Feet).
Loveland, W. O. (Ashby), .	58,110	—	—	176	—	58,080
Lowell, .	3,385,657	32,384	293,690	3,397	60	732,068
Ludlow Mfg. Associates, .	141,910	—	—	331	112	65,210
Lynn, .	5,196,424	130,770	908,969	8,065	87	887,150
Malden,	5,560,638	33,903	—	8,941	33	1,113,146
Manchester,	90,302	75,364	89,552	7	65	750
Marlborough,	2,180,058	—	—	3,944	175	323,222
Middleton,	33,600	—	—	83	4	10,375
Milford,	382,589	—	—	661	21	81,800
Mill River (Williamsburg), .	153,329	—	—	253	15	32,700
Montague,	50,059	—	—	99	13	16,946
Nashua River (E. Pepperell),	42,320	—	—	—	30	25,000
New Bedford,	1,441,792	42,992	195,284	1,752	328	236,846
Newburyport,	369,200	—	—	853	—	199,760
Niles Estate (Boston), . . .	3,088	—	—	—	—	—
North Adams,	963,280	200	200	985	364	160,600
Northampton,	821,395	—	—	1,671	177	198,617
North Dana,	59,600	—	—	128	—	—
Norton,	78,400	—	—	202	13	33,250
Pittsfield,	2,100,346	4,567	26,049	3,644	748	410,120
Plymouth,	785,228	—	—	1,478	56	258,560
Quincy,	1,928,000	—	—	3,029	201	450,000
Randolph,	244,476	—	—	745	—	100,400
Salem,	1,456,775	16,539	—	2,678	308	277,150
Shelburne Falls,	302,100	—	—	571	1	83,250
South Hadley Falls,	171,774	—	—	686	25	97,312
Spencer,	133,870	—	—	593	15	66,500
Steam and Power (Boston), .	—	—	—	—	—	—
Stockbridge,	353,248	37,010	61,071	501	315	61,811
Suburban (Revere),	2,201,881	6,670	6,691	2,534	350	312,285
Sunderland,	107,806	—	—	273	33	36,960
Turner, G. H. (Charlemont),	20,040	—	—	41	—	10,810
Tyngsborough,	98,520	—	—	273	—	32,000
Union (Franklin),	359,657	—	—	832	226	112,000
United (Springfield), . . .	3,740,443	392,415	1,803,935	3,420	395	331,758
Vineyard Lighting (Oak Bluffs),	293,522	—	—	788	111	114,975
Ware,	316,676	—	—	562	171	59,044
Webster,	2,135,329	—	—	3,377	174	336,150
Westborough,	284,102	—	—	598	34	74,640
Weston,	902,195	—	—	1,723	206	215,000
Weymouth,	1,183,775	—	—	1,790	174	317,464
Williamstown,	212,460	—	—	303	56	49,140
Winchendon,	332,105	1,446	2,652	706	104	93,484
Worcester,	4,704,921	376,457	3,560,194	4,825	1,669	222,377
Worcester Suburban,	2,305,639	—	—	3,802	485	507,039

* Not given.

TABLE 5. — *Connected Load Statistics.*

The following table shows the connected load for all customers, except in the supply to other companies or municipal plants, June 30, 1911:—

COMPANY.	Number of Municipal Areas.	Number of Commercial Areas.	Number of Municipal Incandescent.	Number of Commercial Incandescent.	Total Lighting Load in K. W.	Number of Motors.	Total Power Load in K. W.	Total Lighting and Power Load in K. W.
Abington and Rockland,	22	6	975	32,831 ¹	1,873.35	153	603.277	2,476.627
Adams,	86	5	100	6,334	335.1	29	47.8	382.9
Adams, U. S. (Townsend),	—	—	67	1,479	132.575	—	—	132.575
American Woolen (Maynard),	15	—	140	9,575	484.16	20	8.57	492.73
Amesbury,	39	8	333	6,090	334.12	109	685.0	1,019.12
Amherst,	32	6	419	— ²	562.55	21	160.0	722.55
Athol,	43	2	615	15,749	789.55	83	981.4 ³	1,770.95
Attleborough,	120	111	409	30,454	1,652.67	240	1,576.3	3,228.97
Ayer,	6	12	137	3,858	261.2	4	5.0	266.2
Ballou, G. M. (Shirley),	—	—	116.8	1,790	84.34	—	—	84.34
Beverly,	370	63	115	43,521	2,350.7	62	209.846	2,560.546
Blackstone,	34	1	51	2,500 ⁴	136.91	—	—	136.91
Block Plant (Boston),	—	12	—	3,520	180.6	29	81.0	261.6
Bridges, J. B. & Co. (So. Deerfield),	—	—	57 ³	1,160	58.58	1	1.0	59.58
Buzzards Bay (Falmouth),	—	—	179	2,238	995.98	—	—	995.98
Cambridge,	608 ¹	51	607	105,035	5,605.108	947	5,899.054	11,504.222
Cape Light (Provincetown),	—	—	116	2,534	127.1	2	4.0	131.1
Central Massachusetts (Palmer),	47	—	528	14,657	764.782	— ²	1,375.0	2,139.782
Charlestown,	276	21	—	11,994	805.47	384	1,180.5	1,985.97
Chester,	—	—	26	598	26.195	—	—	26.195
Citizens (Nantucket),	29	—	108	2,710	151.9	—	—	151.9
Clinton,	49	6	531	8,285	444.38	26	111.0	555.38
Colrain,	—	—	13	890	45.02	4	15.666	60.686

¹ Includes 357 electric flat-irons.

² Unknown.

³ Includes 607 kilowatts for cars and snow plow owned by street railway company.

⁴ Includes 48 miscellaneous devices in 50 watt equivalents.

TABLE 5. — *Connected Load Statistics* — Continued.

COMPANY.	Number of Municipal Area.	Number of Com- mercial Area.	Number of Municipal Incon- descents.	Number of Commercial In- descents.	Total Lighting Load in K. W.	Number of Motors.	Total Power Load in K. W.	Total Lighting and Power Load in K. W.
Deerfield River (Conway),	-	1	86	1,268	68.1	-	-	68.1
Easthampton,	61	-	97	3,299	194.275	25	550.0	744.275
Edison (Boston),	-	-	-	-	86,627.0	-	138,691.0	225,318.0
Edison (Brockton),	386	962	1,872	72,309	4,650.14	-	3,332.96	7,983.09
Fall River,	856	428	420	68,042	3,877.0	1,354	1,757.0	5,634.0
Fitchburg,	337	67	397½	22,477	1,555.0	578	1,686.0	2,941.0
Foxborough,	-	-	216	4,289	216.48	35	165.0	381.48
Franklin (Turners Falls),	16	-	165	6,091	298.9	33	118.42	417.32
Gardner,	1	1	551	14,347	723.28	97	837.87	1,561.15
Gloucester,	112	50	1,141	42,001	2,194.94	141	429.1	2,624.04
Great Barrington,	-	11	352	15,365	775.45	88	328.5	1,103.95
Greenfield,	82	24	1,92½	27,644	1,346.92	370	2,387.258	3,734.178
Haverhill,	202	298	69	51,967	2,703.07	522	1,867.0	4,570.07
Huntington,	1	29	732	18,628	-	-	-	-
Hyde Park,	73	20	572	18,628	977.23	13	57.82	1,035.05
Lawrence,	646	182	1,291.5	61,697	3,582.4	1,391	2,601.63	6,184.03
Lee,	-	-	242	9,950	473.5	3	3.7	477.2
Lenox,	-	-	-	-	-	-	-	-
Leominster,	115	24	366	19,238	1,024.2	132	683.0	1,707.2
Loveland, W. O. (Ashby),	-	-	28	200	10.7	-	-	10.7
Lowell,	557	321	1,557	86,981	5,190.113	632	5,160.158	10,350.271
Ludlow Manufacturing Associates,	-	-	304	5,197	275.0	-	20.5	295.5
Lynn,	535	446	1,885	138,064	7,541.7	921	4,479.0	12,020.7
Malden,	508	259	3,082	87,646	4,837.33	315	1,726.0	6,563.33
Manchester,	-	-	15,451	15,451	265.0	9	37.5	302.5
Marlborough,	-	8	1,275	40,146	2,070.77	1,307.5	1,021.297	3,092.07

TABLE 5. — *Connected Load Statistics* — Concluded.

COMPANY.	Number of Municipal Area.	Number of Commercial Area.	Number of Municipal Incandescent.	Number of Commercial Incandescent.	Total Lighting Load in K. W.	Number of Motors.	Total Power Load in K. W.	Total Lighting and Power Load in K. W.
Union (Franklin),	—	—	430	4,722	278.74 ¹	21	123.84	402.58
United (Springfield),	1,274	510	1,279	175,102	9,527.0	1,090	6,495.0	16,022.0
Vineyard Lighting (Oak Bluffs),	—	—	354	3,690	174.896	6	100.0	274.896
Ware, .	72	7	80	— ²	40.34 ²	23	13.0	53.34
Webster, .	151	37	774	14,809	870.02	62	564.0	1,434.02
Westborough, .	—	—	—	—	—	—	—	—
Weston, .	—	—	746	9,000	479.85	24	40.5	520.35
Weymouth, .	23	—	414	11,000 ²	574.441	— ²	675.0	1,249.441
Williamstown, .	37	—	186	3,554	181.2	13	22.3	203.5
Winchendon, .	17	5	4,910	4,910	304.3	20	140.0	444.3
Worcester, .	919	315	513	144,319	7,600.625	1,015	3,853.463	11,454.088
Worcester Suburban, .	1	3	1,506	20,297	1,065.035	788	891.0	1,956.035

¹ Includes 278.74 for fans, motors, etc.² Unknown.³ Includes municipal lamps and commercial area.⁴ Plant leased.⁵ Estimated.

TABLE 6. — *Fuel Statistics.*

The following table shows the quantities of coal and other materials used by the several companies during the year of the returns:—

COMPANY.	Coal used (Tons).	Screen- ings (Tons).	Wood (Cords).	Coke (Tons).	Number of Carbons used.
Abington and Rockland, .	1—	—	—	—	1,230
Adams, .	1—	—	—	—	2,751
Adams, U. S. (Townsend), .	3	—	181½	—	—
American Woolen (Maynard), .	—	—	—	—	—
Amesbury, .	1,316	711	—	—	1,276
Amherst, .	251½	—	—	—	1,800
Athol, .	1,830	15	—	—	1,151
Attleborough, .	4,765	—	—	—	3,606
Ayer, .	541	—	—	—	469
Ballou, G. M. (Shirley), .	102	—	—	—	—
Beverly, .	3,218	258	—	684	6,500
Blackstone, .	1—	—	—	—	923
Block Plant (Boston), .	1,634½	1,201½	—	—	408
Bridges, J.B. & Co. (So. Deerfield), .	1—	—	—	—	—
Buzzards Bay (Falmouth), .	464½	—	—	—	—
Cambridge, .	12,292½	—	—	—	26,974
Cape Light (Provincetown), .	—	—	—	—	—
Central Mass., .	5,811½	—	—	—	8,537
Charlestown, .	1—	—	—	—	392
Chester, .	—	—	—	—	—
Citizens' (Nantucket), .	586	—	—	—	1,000
Clinton, .	1,393	—	—	—	3,726
Colrain, .	—	—	—	—	—
Deerfield River (Conway), .	1—	—	—	—	—
Easthampton, .	470	—	—	111½	1,550
Edison (Boston), .	124,724	—	—	—	412,910
Edison (Brockton), .	12,191½	—	—	—	47,100
Fall River, .	7,726	—	—	—	26,032
Fitchburg, .	4,420	230½	—	703½	12,675
Foxborough, .	837½	804½	—	—	—
Franklin (Turners Falls), .	1—	—	—	—	900
Gardner, .	10—	—	—	—	126
Gloucester, .	2,627	162	—	—	5,100
Great Barrington, .	21	—	—	—	100
Greenfield, .	1,194	—	—	—	1,451
Haverhill, .	5,992½	—	—	—	28,648
Huntington, .	11—	—	—	—	65
Hyde Park, .	9,612	—	—	—	33,786
Lawrence, .	2,794½	—	—	11,733	158,051
Lee, .	898½	—	—	—	—
Lenox, .	1—	—	—	—	—
Leominster, .	2,616	—	—	—	1,065
Loveland, W. O. (Ashby), .	—	—	1105	—	—

¹ Current bought.

² Also 357 cords sawdust and shavings.

³ Steam supplied from mill boilers.

⁴ Also waste wood, sawdust and shavings valued at \$522.80.

⁵ Also waste wood.

⁶ 24,478 gallons fuel oil.

⁷ 3,856 gallons gasoline.

⁸ 1,678 gallons gasoline.

⁹ Also 11,469 gallons water gas tar.

¹⁰ 67,321 gallons fuel oil.

¹¹ Water power leased.

¹² Also 730½ tons coke dust.

¹³ Also 633 gallons gasoline.

TABLE 6. — *Fuel Statistics* — Concluded.

COMPANY.	Coal used (Tons).	Screen- ings (Tons).	Wood (Cords).	Coke (Tons).	Number of Carbons used.
Lowell,	20,542 ¹ ₇₀	—	—	—	35,732
Ludlow Mfg. Associates,	1—	—	—	—	—
Lynn,	13,466	—	—	55	41,946
Malden,	6,997	—	—	1,132	21,425
Manchester,	2—	—	—	—	—
Marlborough,	273 ¹ ₇₀	99 ¹ ₇₀	—	—	708
Middleton,	2—	—	—	—	—
Millford,	2—	—	—	—	975
Mill River (Williamsburg),	2—	—	—	—	—
Montague,	2—	—	—	—	—
Nashua River (E. Pepperell),	1—	—	—	—	—
New Bedford,	6,183	—	—	24 ¹ ₇₀	17,195
Newburyport,	2,494 ¹ ₇₀	—	—	67	4,800
Niles Estate (Boston),	551 ¹ ₇₀	—	—	—	—
North Adams,	45,904	—	—	3,997	10,266
Northampton,	2,115	—	—	—	5,077
North Dana,	2—	—	—	—	—
Norton,	2—	—	—	—	—
Pittsfield,	10,102 ¹ ₇₀	—	—	—	16,760
Plymouth,	2,213 ¹ ₇₀	—	—	—	550
Quincy,	2,962	1,055	—	—	8,249
Randolph,	1,095	65	—	—	—
Salem,	6,926	—	—	—	25,014
Shelburne Falls,	726	—	—	—	—
South Hadley Falls,	2—	—	—	—	—
Spencer,	386	—	—	—	671
Stockbridge,	2—	—	—	—	—
Suburban (Revere),	3,758	139	—	—	11,800
Sunderland,	2—	—	—	—	—
Turner, G. H. (Charlemont),	2—	—	—	—	—
Tyngsborough,	2—	—	—	—	—
Union (Franklin),	2—	—	—	—	2—
United (Springfield),	18,928	—	—	—	68,534
Uxbridge and Northbridge,	2,250	—	—	—	—
Vineyard Lighting (Oak Bluffs),	646	—	—	—	210
Ware,	1,031	—	—	—	3,475
Webster,	2,992	40	—	—	11,260
Westborough,	11—	—	—	—	609
Weston,	2—	—	—	—	—
Weymouth,	3,618	—	—	—	1,210
Williamstown,	2—	—	—	—	593
Winchendon,	2—	—	—	—	366
Worcester,	15,149	—	—	—	39,909
Worcester Suburban,	2,983	—	—	—	—

¹ Steam supplied from mill boilers.² Current bought.³ Water power only.⁴ Also 295 barrels of tar.⁵ Power leased.⁶ Also 29,177 gallons fuel oil.⁷ For two months only; current then purchased.⁸ Water power leased.⁹ No record.¹⁰ For six months.¹¹ Current purchased for six months; plant now leased.

TABLE 7. — *Electric Current generated and sold.*

The following table shows the total kilowatt hours generated, the kilowatt hours generated for street lights and the kilowatt hours sold to commercial customers and others, as taken from the returns of the several companies for the year ending June 30, 1911: —

COMPANY.	Total K. W. H. gen- erated.	K. W. H. gen- erated for Street Lights.	K. W. H. sold to Com- mercial Lighting Cus- tomers.	K. W. H. sold to Power Cus- tomers.	K. W. H. sold to Street Rail- ways.	K. W. H. sold to Other Com- panies.
Abington & Rockland,	1,984,300	144,346	374,104	852,646	-	-
Adams,	422,316	152,149	191,624	24,940	-	-
Adams, U. S. (Townsend),	1 -	1 -	4,865	-	-	-
American Woolen (Maynard),	119,838	18,868	87,987	790	-	-
Amesbury,	948,494	85,020	115,884	527,411	-	-
Amherst,	572,250	62,224	186,253	81,329	-	84,260
Athol,	1,111,168	144,128	248,619	310,658	251,224	-
Attleborough,	2,902,650	188,785	439,475	1,619,925	-	-
Ayer,	130,800	17,577	52,112	1,579	-	27,870
Ballou, G. M. (Shirley),	40,419	15,740	18,629	-	-	-
Beverly,	1,758,014	579,688	546,138	123,391	-	227,689
Blackstone,	93,060	49,408	22,031	-	-	-
Block Plant (Boston),	572,380	-	286,372	34,356	-	-
Bridge, J. B., & Co. (South Deerfield),	28,460	4,918	18,961	130	-	-
Buzzards Bay (Falmouth),	61,121	10,271	1 -	-	-	-
Cambridge,	9,638,726	1,302,628	1,758,685	4,427,846	-	266,817
Cape Light (Provincetown),	1 -	-	21,219	-	-	-
Central Mass.,	2,997,152	98,686	179,276	97	2,478,737	-
Charlestown,	1 -	1 -	306,254	275,704	-	-
Chester,	1 -	1 -	10,566	-	-	-
Citizens' (Nantucket),	70,000	29,200	35,390	-	-	-
Clinton,	507,918	214,347	135,676	65,602	-	-
Colrain,	18,419	885	12,762	1,005	-	-
Deerfield River (Conway),	* 100,570	1 -	1 -	-	-	-
Douglas,	* 26,620	6,387	8,356	2,336	-	-
Easthampton,	1,540,911	61,580	47,906	1,100,736	-	5,900
Edison (Boston),	131,988,004	15,806,540	49,939,974	16,963,534	7,177,552	2,654,897
Edison (Brookton),	9,400,686	921,499	2,966,773	1,333,675	-	1,934,300
Fall River,	5,764,466	1,276,678	1,715,963	1,230,960	-	93,883
Fitchburg,	3,912,187	771,000	593,175	1,386,846	-	505,000
Foxborough,	186,397	20,596	49,934	68,975	-	-
Franklin (Turners Falls),	319,810	73,960	80,805	46,009	-	54,010
Gardner,	2,037,148	244,660	355,943	830,054	-	134,500
Gloucester,	1,377,022	259,970	447,639	128,174	-	-
Great Barrington,	689,412	46,840	167,582	190,214	-	98,974
Greenfield,	5,926,886	160,176	414,651	1,296,222	2,980,650	149,232
Haverhill,	4,171,250	176,230	949,563	1,856,309	-	67,890
Huntington,	1 -	1 -	8,895	-	-	-
Hyde Park,	4,607,880	162,505	239,087	36,050	3,892,712	-
Lawrence,	5,219,983	1,186,463	1,494,194	1,224,068	-	-
Lee,	196,217	18,319	119,427	-	-	-
Lenox,	98,662	-	98,662	-	-	-
Leominster,	1,197,470	205,420	216,256	587,121	-	-
Loveland, W. O. (Ashby),	1 -	1 -	6,586	-	-	-
Lowell,	15,029,545	1,867,121	2,229,825	7,218,038	357,200	-
Ludlow Mfg. Associates,	186,421	60,665	38,631	5,501	-	-
Lynn,	10,514,920	1,817,520	2,911,906	8,658,061	-	269,623
Malden,	5,905,900	1,316,300	1,419,483	1,326,851	-	126,663
Manchester,	227,711	-	148,439	5,914	-	-
Marlborough,	2,313,860	208,422	471,251	883,262	-	176,500
Middleton,	59	-	59	-	-	-
Milford,	326,440	89,411	127,725	25,446	-	-

* No record.

* Estimated.

* For six months only.

TABLE 7. — *Electric Current generated and sold* — Concluded.

COMPANY.	Total K. W. H. gen- erated.	K. W. H. gen- erated for Street Lights.	K. W. H. sold to Com- mercial Lighting Cus- tomers.	K. W. H. sold to Power Cus- tomers.	K. W. H. sold to Street Rail- ways.	K. W. H. sold to Other Com- panies.
Millbury,	174,287	12,748	19,010	17,471	-	2,468
Mill River (Williamsburg),	110,480	19,548	22,465	55,100	-	-
Montague,	2-	2-	8,397	-	-	-
Nashua River (E. Pepperell),	2-	11,148	2-	25,808	-	-
New Bedford,	2,977,383	511,566	1,420,527	579,002	-	-
Newburyport,	947,927	233,134	162,334	406,300	-	-
Niles Estate (Boston),	187,888	-	101,707	-	-	-
North Adams,	3,974,594	347,801	773,542	1,443,655	-	709,552
Northampton,	1,604,630	278,245	550,554	393,568	-	110,480
North Dana,	2-	2-	2-	-	-	-
Norton,	6,000	-	5,000	500	-	-
Pittsfield,	3,888,960	529,055	993,431	1,429,759	-	-
Plymouth,	1,320,090	67,840	406,520	566,180	-	-
Quincy,	2,115,967	510,559	489,457	310,054	-	-
Randolph,	293,138	37,600	157,309	51,618	-	-
Salem,	4,791,398	695,060	941,974	2,024,076	-	-
Shelburne Falls,	131,418	35,228	41,435	10,683	-	13,644
South Hadley Falls,	2-	-	-	-	-	-
Spencer,	48,398	35,577	9,698	-	-	-
Steam and Power (Boston),	-	-	-	-	-	-
Stockbridge,	98,974	15,438	36,125	14,807	-	-
Suburban (Revere),	2,594,739	503,990	1,212,632	163,348	-	-
Sunderland,	41,635	1,600	4,128	-	-	28,460
Turner, G. H. (Charlemont),	2-	-	-	-	-	-
Tyngsborough,	2-	4,415	6,101	-	-	-
Union (Franklin),	419,411	40,571	68,727	146,496	-	-
Upton,	12,577	7,314	2,809	330	-	-
United (Springfield),	19,033,612	2,057,043	4,049,405	4,998,037	-	-
Uxbridge and Northbridge,	1,037,254	30,254	59,365	250,167	379,900	185,963
Vineyard Lighting (Oak Bluffs),	149,383	28,833	76,091	1,575	19,800	-
Ware,	267,100	111,625	88,153	1,565	-	-
Webster,	2,249,629	446,979	338,597	636,304	-	-
Westborough,	72,686	12,416	26,042	4,970	-	-
Weston,	323,945	78,183	103,728	4,260	-	-
Weymouth,	1,168,062	71,158	188,646	298,714	-	432,067
Williamstown,	279,712	56,944	147,181	3,845	-	-
Winchendon,	216,029	47,600	137,645	-	-	-
Worcester,	9,684,252	1,354,800	3,181,793	3,139,556	236,690	-
Worcester Suburban,	1,120,988	77,715	145,029	291,178	368,900	-

1 For six months only.

2 No record.

3 For five months only.

TABLE 8. — *Amount of Electric Current sold to Other Companies and Municipalities for Years ending June 30, 1910 and 1911.*

SOLD BY —	Sold to —	Number of K. W. H. 1910.	Number of K. W. H. 1911.	Amount re- ceived 1911.
Amherst,	Amherst Power,	37,000	42,800	\$745.50
	Sunderland,	41,080	41,660	1,688.40
Amherst Power,	Amherst,	495,800	501,100	5,913.70
Ayer,	Easthampton,	-	1,474,664	14,748.64
	Town of Groton,	11,340	27,870	1,656.30
Berkshire,	Pittsfield,	129,600	115,600	1,502.80
Beverly,	Manchester,	193,600	227,689	10,247.01
Boston & Northern Street Railway,	Haverhill,	-	38,866	11.66
Brockton & Plymouth Street Railway,	Plymouth,	483,601	12,180	304.48
Cambridge,	Edison (Boston),	1,292	-	-
Conway Street Railway,	Town of Belmont,	236,387	266,817	11,022.39
	Deerfield River,	63,600	100,870	1,399.62
	Fitchburg,	-	505,000	5,290.00
	Gardner,	1,071,934	2,087,148	28,151.86
Connecticut River,	Marlborough,	1,791,400	2,313,850	25,098.75
	Worcester,	-	8,792	439.60
Dalton Power,	Town of West Boylston,	-	31,680	792.00
Danvers, town of,	Pittsfield,	77,046	78,800	1,303.94
	Middleton,	-	59	3.54
Easthampton,	Amherst Power,	-	5,900	59.00
	Cambridge,	1,608	4,069	217.98
	Charlestown,	1,352,618	1,483,538	36,962.32
	Chelsea,	162,200	-	-
Edison (Boston),	Lexington,	85,360	-	-
	Newton,	294,310	-	-
	Union (Franklin),	-	540	95.43
	Town of Norwood,	443,200	664,950	13,844.90
	Town of Wellesley,	456,390	801,810	13,970.90
Edison (Brockton),	Abington & Rockland,	681,050	1,934,300	25,858.81
	Bridgewater,	53,500	-	-
Fitchburg,	Connecticut River,	-	505,000	5,290.00
Franklin (Turners Falls),	Millers Falls Water Supply Dis- trict,	48,820	54,010	1,625.70
Gardner,	Town of Ashburnham,	60,582	61,200	2,448.00
Great Barrington,	Town of Templeton,	62,404	73,300	2,932.01
Greenfield,	Stockbridge,	79,108	98,973	2,960.21
	Shelburne Falls,	-	117,743	3,632.28
	Turners Falls,	-	16,400	328.00
Haverhill,	Town of Groveland,	77,067	67,890	2,376.15
Haverhill & Southern New Hampshire Street Railway,	Amesbury,	34,181	26,142	914.97
Hull, town of,	Abington & Rockland,	11,260	-	-
	Hingham, town of,	730	909	136.24
Ipswich, town of,	Town of Rowley,	-	18,450	1,107.00
Lynn,	Suburban (Revere),	864,916	244,023	7,388.10
	Town of Marblehead,	-	25,600	1,408.00
Malden,	Edison (Boston),	530	12,507	62.00
	Suburban (Revere),	172,732	114,156	2,359.00
	Town of Wakefield,	4,420	-	-
Mansfield, town of,	Foxborough,	1,404	5,295	583.01
Marlborough,	Connecticut River,	154,407	9,280	372.09
	Westborough,	69,630	72,686	1,817.16
Milford & Uxbridge Street Railway,	Town of Shrewsbury,	62,630	84,639	4,231.95
Millbury,	Milford,	307,500	326,440	11,625.37
Monument Mills,	Worcester Suburban,	4,539	2,468	123.42
	Great Barrington,	79,103	98,974	2,474.34
North Adams,	Adams,	-1	422,216	7,759.87
	Williamstown,	-1	279,712	5,034.79

1 No record.

TABLE 8. — *Amount of Electric Current sold to Other Companies, etc.*
— Concluded.

SOLD BY —	Sold to —	Number of K. W. H. 1910.	Number of K. W. H. 1911.	Amount re- ceived, 1911.
Northampton, . . .	Mill River (Williamsburg), . . .	124,900	110,480	\$1,657.20
Reading, town of, . . .	Town of Wakefield, . . .	71,344	106,863	2,610.42
Salem, . . .	Town of Peabody, . . .	74,834	—	—
Shelburne Falls, . . .	Colrain, . . .	—	13,644	545.76
Sunderland, . . .	J. B. Bridges & Co. (South Deer- field), . . .	23,796	28,460	1,849.90
Turners Falls, . . .	Franklin, . . .	275,170	319,810	5,327.88
	Greenfield, . . .	1,795,145	2,700,430	13,502.15
	Douglas, . . .	41,908	26,620	1,043.01
	Millbury, . . .	155,977	74,287	2,550.58
Uxbridge & Northbridge, . . .	Upton, . . .	11,393	12,577	502.87
	Worcester Suburban, . . .	118,234	71,021	2,620.59
Westinghouse, . . .	Lenox, . . .	86,615	98,452	9,865.20
Weymouth, . . .	Town of Hingham, . . .	353,974	371,196	14,368.57
Whitney, B. B. & Son, . . .	Winchendon, . . .	181,000	—	—
Woonsocket Electric, . . .	Blackstone, . . .	83,370	93,060	5,798.12
Worcester Consolidated Street Railway, . . .	Union (Franklin), . . .	242,211	419,104	7,984.99
	Worcester, . . .	39,106	—	—

TABLE 9. — *Statistics of Lights and Customers.*

The following table shows the number of commercial lights installed, and the number of customers for each kind, on June 30 last: —

COMPANY.	Number of Customers using Commercial Arc Lights only.	Number of Customers using Commercial Incandescent Lights only.	Number of Customers using both Arc and Incandescent Lights but no Power.	Number of Customers using Electric Power only.	Number of Customers using both Light and Power.	COMMERCIAL AREA.				Number of Commercial Carbon Lamps in 60 Watt Units.	Number of Commercial Tungsten Lamps in 40 Watt Units.	Number of Normal Lamps.	Number of Single Arc Lamps.	Number of Double Arc Lamps.	Number of Enclosed Arc Lamps.
						Number.	Amps.	Watts.							
								BATING.							
Abington and Rockland, . . .	1,284	3	13	66	6	6	6.6	450	32,524 ¹	1,618	—	—	—	—	28
Adams, U. S. (Townsend), . . .	377	2	5	24	5	5	6.6	525	4,716	—	—	—	—	—	5
Adams, U. S. (Townsend), . . .	87	1	1	—	—	—	—	—	1,479	636	—	—	—	—	15
American Woolen (Maynard), . .	423	—	—	20	—	—	—	—	8,939	—	—	—	—	—	—
Amesbury, . . .	263	3	20	35	4	4	4	280	5,638	452	—	—	—	—	47
Amherst, . . .	479	1	2	19	6	6	7.5	420	—	—	—	—	—	—	38
Athol, . . .	839	2	10	53	2	2	6	660	11,002	4,747	—	—	—	—	45
Attleborough, . . .	939	14	3	95	44	4	4	350	30,464 ¹	—	—	—	—	—	231
Ayer, . . .	204	3	4	—	3	3	4	320	2,928	930	—	—	—	—	18
Ballou, G. M. (Shirley), . . .	54	—	—	—	9	9	6	480	1,690	100	—	—	—	—	—
Beverly, . . .	1,117	9	9	41	37	4	4	300	43,521 ¹	—	—	—	—	—	433
Blackstone, . . .	92	1	—	—	1	1	5	400	2,319	133	—	—	—	—	35
Block Plant (Boston), . . .	120	7	11	—	25	6	6	450	3,320	200	—	—	—	—	12
Bridges, J. B. & Co. (S. Deerfield),	65	—	—	7	12	5	5	550	930	230	—	—	—	—	—
Bussards Bay (Falmouth), . .	129	—	—	2	—	—	—	—	293	1,944	—	—	—	—	—

¹ Includes also 40 watt tungsten lamps.² No record.

TABLE 9. — Statistics of Lights and Customers — Continued.

COMPANY.	Number of Customers using Commercial Arc Lights only.	Number of Customers using Commercial Incandescent Lights only.	Number of Customers using both Arc and Incandescent Lights but no Power.	Number of Customers using Electric Power only.	Number of Customers using both Light and Power.	COMMERCIAL ARCS.				Number of Commercial Incandescent Carbon Lamps in 40 Watt Units.	Number of Commercial Incandescent Tungsten Lamps in 40 Watt Units.	Number of Nernst Lamps.	Number of Single Arc Lamps.	Number of Double Arc Lamps.	Number of Enclosed Arc Lamps.	
						Number.	Amperes.	Watts.	RATING.							
Cambridge,	1	2,301	3	91	196	42½	6.6	450	95,304	9,320	411	—	—	—	747	
Cape Light (Provincetown),	—	203	—	—	2	5	6	500		—	—	—	—	—	—	
Central Massachusetts,	—	814	—	1	3	7	6	530		1,910	624	—	—	26	21	
Charlestown,	2	249	8	22	47	6	6	680	10,677	1,298	—	—	—	—	292	
Chester,	—	42	—	—	—	2	6.7	500		126	472	—	—	—	—	
Citizens' (Nantucket),	—	232	—	—	—	8	10	550		2,460	250	—	—	—	—	
Clinton,	—	344	4	12	15	6	5	400	6,889	1,384	12	—	—	—	29	
Coleman,	—	49	—	2	2	—	—	—	877	13	—	—	—	—	55	
Deerfield River (Conway),	1	63	—	—	—	1	—	400	1,268	—	—	—	—	—	1	
Easthampton,	—	171	—	6	16	—	—	—	2,946	353	—	—	—	—	61	
Edison (Boston),	161	35,716	917	1,527	—	—	—	—	—	—	—	—	—	—	11,231	
Edison (Brooklyn),	19	2,246	47	180	200	28	—	430	72,269	—	—	—	—	—	1,348	
Edison (Brooklyn),	—	—	—	—	—	267	4	456		40	—	—	—	—	—	
Edison (Brooklyn),	—	—	—	—	—	667	5	570		—	—	—	—	—	—	
Fall River,	2	2,166	43	33	123	96	3½	375	58,415	9,627	—	—	—	—	1,284	
	—	—	—	—	—	3	4	333	—	—	—	—	—	—	—	
	—	—	—	—	—	236	5	575	—	—	—	—	—	—	—	
	—	—	—	—	—	58	6	690	—	—	—	—	—	—	—	
	—	—	—	—	—	35	—	—	—	—	—	—	—	—	—	

Fitchburg,
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Includes also 40 watt tungsten lamps.

No record.

TABLE 9. — *Statistics of Lights and Customers* — Concluded.

COMPANY.	Number of Customers using Commercial Arc Lights only.	Number of Customers using Commercial Incandescent Lights only.	Number of Customers using both Arc and Incandescent Lights but no Power.	Number of Customers using Electric Power only.	Number of Customers using both Light and Power.	COMMERCIAL ARCS.				Number of Commer- cial Incandescent Lamps in 60 Watt Units.	Number of Commer- cial Incandescent Lamps in 40 Watt Units.	Number of Nernst Lamps.	Number of Single Arc Lamps.	Number of Double Arc Lamps.	Number of Enclosed Arc Lamps.
						Number.	RATING.		Watts.						
							Amps.								
Malden,	39	4,283	28	226	31	12 223 11 6 10 2 4 1	4 6 6 10 12 30 36	310 450 430 500 600 3,120 3,744	82,784	4,862	—	—	—	5	789
Manchester,	—	363	—	5	4	2	7.6	550	15,451	—	—	—	—	—	—
Marlborough,	—	1,226	6	21	69	6	10	550	38,776	1,357	15	—	—	—	8
Middleton,	—	4	—	—	1	—	—	—	56	12	—	—	—	—	—
Millford,	—	336	6	11	19	15	6.6	525	6,513	2,200	—	—	—	—	32
Mill River (Williamsburg),	—	118	—	2	1	—	—	—	2,869	—	—	—	—	—	—
Montague,	—	50	—	—	2	—	—	—	1,096	—	—	—	—	—	—
Nashua River (E. Pepperell),	—	103	—	—	—	—	—	—	—	—	—	—	—	—	—
New Bedford,	32	2,015	104	142	76	141 174 22	5 6 10	550 500 500	55,062	4,503	58	—	—	—	690
Newburyport,	1	285	2	8	40	27	10	550	—	—	—	—	—	—	190
Niles Estate (Boston),	—	52	—	—	3	9	5	660	8,256	—	—	4	2	3	3
North Adams,	—	1,411	7	2	65	54 56 24	6 6.6 6.6	480 525 2,000	22,849	4,195	30	215	—	—	110
Northampton,	—	706	7	14	251	6	30	—	18,891	7,027	—	—	—	—	153
North Dana,	—	24	—	—	—	—	—	—	450	350	—	—	—	—	—

APPENDIX F.—MUNICIPAL PLANT STATISTICS.

TABLE 1. — *Description of Steam and Electric Equipment.*

The following table of data from the several returns is descriptive of the generating equipment at the stations in the municipalities named on June 30, 1911:—

	BOILERS.		ENGINES.		DYNAMOS.	
	No.	Total Rated H. P.	No.	Total Rated H. P.	No.	Total K. W. Capacity.
Ashburnham, ¹	—	—	—	—	—	—
Belmont, ¹	—	—	—	—	—	—
Braintree,	3	375	3	625	3	515
Chicopee,	4	540	2	750	6	1,115
Concord,	3	270	3	925	3	608
Danvers,	3	375	5	1,285	7	1,116
Groton, ¹	—	—	—	—	—	—
Groveland, ¹	—	—	—	—	—	—
Hingham, ¹	—	—	—	—	—	—
Holyoke,	14	5,000	3	7,996 ²	6	6,800
Hudson,	3	330	3	685	3	450
Hull,	3	500	4	895	4	915
Ipswich,	3	285	3	660	3	430
Mansfield,	—	—	3	465	3	340
Marblehead,	4	520	4	700	4	600
Merrimac,	—	—	2	272	2	195
Middleborough,	2	145	1 ³	150	2	350
Millers Falls,	—	—	1 ⁴	52	1 ⁴	65
North Attleborough,	3	750	4	852	5 ⁵	730 ⁶
Norwood, ¹	—	—	—	—	—	—
Peabody,	3	400	3	1,350	3	975
Reading,	3	375	3	630	3	500
Rowley, ¹	—	—	—	—	—	—
Shrewsbury, ¹	—	—	—	—	—	—
Taunton,	4	1,200	3	3,550	5 ⁷	2,380
Templeton, ¹	—	—	—	—	—	—
Wakefield,	2	250	2	250	2	180
Wellesley, ¹	—	—	—	—	—	—
West Boylston, ¹	—	—	—	—	—	—
Westfield,	3	400	3	1,485	4	1,230

¹ No generating equipment; all current purchased.

² Also 4 water wheels 1,120 H. P.

³ Also 2 water wheels 125 H. P. and 3 gas engines 278 H. P.

⁴ Not in use; current purchased.

⁵ Includes 1 generator not in use.

⁶ 120 K. W. not in use.

⁷ Also 2 power generators 162 K. W.

TABLE 2. — *Street Lines Equipment.*

The following data from the several returns are descriptive of the outside electric construction on June 30, 1911, in each of the municipalities.

MUNICIPALITY.	Total Length of Wire (Feet).	Number of Poles set in Streets.	Number of Poles set Elsewhere.	Length of Streets with Overhead Wires (Feet).
Ashburnham,	76,300	356	12	68,000
Belmont,	529,160	1,218	81	136,987
Braintree,	696,258	1,540	44	150,000
Chicopee,	717,436	686	135	— ¹
Concord,	1,027,233	1,801	8	243,770
Danvers,	614,779	1,035	72	209,740
Groton,	208,560	566	4	69,000
Groveland,	235,580	376	10	78,810
Hingham,	920,428	1,649	9	185,298
Holyoke,	1,284,545	2,212	201	213,595
Hudson,	523,650	798	29	127,300
Hull,	707,276	1,348	47	127,471
Ipswich,	452,765	970	22	117,693
Mansfield,	322,125	400	—	112,900
Marblehead,	639,604	1,135	69	171,000
Merrimac,	216,160	416	—	48,960
Middleborough,	310,634	132	12	118,300
Millers Falls,	85,750	259	—	— ²
North Attleborough,	750,065	1,399	84	132,200
Norwood,	629,651	1,507	25	176,390
Peabody,	1,061,200	945	185	200,640
Reading,	814,756	1,930	70	209,477
Rowley,	119,867	318	—	34,943
Shrewsbury,	431,760	1,200	50	110,880
Taunton,	1,135,500	1,959	25	449,300
Templeton,	286,003	735	14	78,272
Wakefield,	581,657	1,011	—	181,551
Wellesley,	810,100	570	27	199,250
West Boylston,	253,440	624	11	73,360
Westfield,	321,220	749	68	112,079

¹ Unknown.² No record.

TABLE 3. — *Electric Fuel Statistics.*

The following table shows the kind and quantity of fuel and number of carbons used during the year ending June 30, 1911, as shown by the several returns: —

MUNICIPALITY.	Coal (Tons).	Screenings (Tons).	Number of Carbons used.
Ashburnham,	- ¹	-	-
Belmont,	- ¹	-	400
Braintree,	462.0	883.0	2,021
Chicopee,	4,563.0	-	8,410
Concord,	1,578.0	-	-
Danvers,	1,679.0	226.0	4,526
Groton,	- ¹	-	-
Groveland,	- ¹	-	-
Hingham,	- ¹	-	231
Holyoke,	13,516.0 ²	-	26,000
Hudson,	1,110.0	-	680
Hull,	1,149.½	279.0	-
Ipswich,	1,100.0	-	-
Mansfield,	- ³	-	-
Marblehead,	1,885.0	-	2,829
Merrimac,	566.0	234.0	-
Middleborough,	510.½	-	1,120
Millers Falls,	- ¹	-	50
North Attleborough,	1,698.¾	-	-
Norwood,	- ¹	-	396
Peabody,	2,667.0	-	10,000
Reading,	1,210.0	350.0	5,690
Rowley,	- ¹	-	-
Shrewsbury,	- ¹	-	-
Taunton,	4,195.0	-	12,000
Templeton,	- ¹	-	31
Wakefield,	606.0 ⁴	-	1,477
Wellesley,	- ¹	-	7
West Boylston,	- ¹	-	-
Westfield,	3,094.¼ ⁵	-	10,000

¹ Current bought.

² Also used water power and 7,450 bushels coke.

³ 61,504 gallons fuel oil.

⁴ Also 611½ tons coke.

⁵ Also 96 tons breeze.

TABLE 4. — *Electric Current generated and sold.*

The following table shows the total kilowatt hours generated, the kilowatt hours generated for street lights and the kilowatt hours sold to commercial customers, as taken from the returns of the several plants for the year ending June 30, 1911:—

MUNICIPALITY.	Total K. W. Hours generated.	Generated for Street Lights.	K. W. Hours sold to Commercial Customers.
Ashburnham,	61,200	6,380	34,613
Belmont,	263,304	73,020	116,671
Braintree,	457,430	167,550	226,042
Chicopee,	1,320,160	342,394	805,804
Concord,	585,470	152,886	306,338
Danvers,	872,433	170,515	436,068
Groton,	27,870	14,983	8,929
Groveland,	67,890	38,463	27,455
Hingham,	372,105	87,706	161,237
Holyoke,	10,130,470	925,500	7,893,270
Hudson,	513,603	68,793	316,725
Hull,	380,699	41,308	217,856
Ipswich,	— ¹	—	—
Mansfield,	468,900	97,569	202,246
Marblehead,	875,040	423,056	289,464
Merrimac,	216,310	37,590	153,737
Middleborough,	315,189	36,055	168,086
Millers Falls,	54,010	7,328	25,547
North Attleborough,	397,100	94,040	248,069
Norwood,	664,950	63,768	482,475
Peabody,	1,017,910	318,700	548,722
Reading,	727,405	238,235	329,255
Rowley,	18,450	8,586	6,456
Shrewsbury,	84,639	23,650	29,124
Taunton,	2,821,700	662,188	1,489,466
Templeton,	73,300	19,783	36,189
Wakefield,	270,432	88,113	121,099
Wellesley,	501,810	149,580	231,826
West Boylston,	31,680	14,291	5,949
Westfield,	943,400	306,300	438,926

¹ No record.

TABLE 5. — *Connected Load Statistics.*

The following table shows the connected load for all customers, June 30, 1911: —

MUNICIPALITY.	Number of Municipal Area.	Number of Commercial Areas.	Number of Municipal Incandescent.	Number of Commercial Incandescent.	Total Lighting Load in K. W.	Number of Motors.	Total Power Load in K. W.	Total Lighting and Power Load in K. W.
Ashburnham,	—	—	100	1,608	73.0	—	17.0 ¹	73.0
Belmont,	11½	—	329	13,120	604.3	5	15.95	620.25
Braintree,	—	—	595	— ²	— ²	13	30.0	— ²
Chicopee,	239	15	58	— ²	— ²	— ²	251.02 ³	— ²
Concord,	—	—	1,130	16,000	845.2	16	53.0	898.2
Danvers,	118	4	540	16,474	888.6	14	140.0	1,028.6
Groton,	—	—	383	1,925	100.66	—	—	100.66
Groveland,	—	—	245	2,000	118.375	— ²	6.0	124.375
Hingham,	6	—	741	14,159	742.418	20	53.712	796.13
Holyoke,	507	410	391	68,380	3,663.85	596	4,637.0	8,300.85
Hudson,	15	—	384	9,536	506.99	— ²	221.0	527.99
Hull,	—	3	724	22,596	1,166.59	— ²	46.67	1,213.26
Ipswich,	— ²	—	—	—	—	—	—	—
Mansfield,	—	—	573	— ²	— ²	24	269.0	— ²
Marblehead,	172	2	299	— ²	— ²	51	188.0	— ²

Marimac,	.	.	.	.	.	383	1,554	96.6	19	114.5	211.1
Middleborough,	.	.	.	.	25	202	8,012	509.08	44	117.1	626.18
Millers Falls,	.	.	.	.	3	88	— ¹	— ¹	—	—	— ¹
North Attleborough,	.	.	.	.	—	724	17,833	930.85	— ²	80.5	1,011.35
Norwood,	.	.	.	.	—	595	10,520	501.285	179	534.0	1,035.285
Peabody,	.	.	.	.	146	441	26,201	1,396.96	—	502.0	1,898.96
Reading,	.	.	.	.	125	287	18,604	817.4	36	96.9	914.3
Rowley,	.	.	.	.	—	146	586	8.51	2	.12	8.63
Shrewsbury,	.	.	.	.	—	337	3,750	175.98	12	157.5	333.48
Taunton,	.	.	.	.	197	1,650	19,500	1,171.02	126	1,204.0	2,375.02
Templeton,	.	.	.	.	—	234	2,650	136.05	21	10.16	146.21
Wakefield,	.	.	.	.	48	536	— ²	— ¹	— ¹	— ¹	— ¹
Wellesley,	.	.	.	.	—	1,297	16,950	896.2	21	21.0	917.2
West Boylston,	.	.	.	.	—	179	1,040	48.76	—	—	48.76
Westfield,	.	.	.	.	131	82	— ¹	— ¹	68	216.0	— ¹

¹ Horse-power.² No record.³ Incomplete.

TABLE 6. — *Statistics of Lights and Customers.*

The following table shows the number of commercial lights installed, and the number of customers for each kind, on June 30 last: —

COMPANY.	Number of Customers using Commercial Arc Lights only.	Number of Customers using Commercial Incandescent Lights only.	Number of Customers using both Arc and Incandescent Lights but no Power.	Number of Customers using Electric Power only.	Number of Customers using both Light and Power.	COMMERCIAL ARC.			Number of Commercial Carbon Lamps in 50 Watt Units.	Number of Commercial Tungsten Lamps in 40 Watt Units.	Number of Nernst Lamps.	Number of Single Arc Lamps.	Number of Double Arc Lamps.	Number of Enclosed Arc Lamps.
						Number.	Amperes.	Watts.						
Ashburnham,	1	107	1	2	4	1	1	400	1,200	8	1	1	1	114
Belmont,	1	553	1	1	5	1	1	13,120	1	1	1	1	1	1
Brantree,	1	906	1	1	13	1	1	1	1	1	1	1	1	1
Chicopee,	1	972	5	7	19	8	6	660	16,000	1	12	1	1	254
Concord,	1	585	1	1	42	1	1	1	14,399	2,075	1	1	1	122
Danvers,	3	825	2	1	45	4	6.6	525	850	1,125	1	1	1	1
Groton,	1	55	1	1	6	1	1	2,000	1	1	1	1	1	1
Groveland,	1	89	1	1	1	1	1	1	14,159	19,980	248	1	1	917
Hingham,	1	534	84	46	20	410	6	500	48,172	1	36	1	1	15
Holyoke,	1	2,129	1	6	23	1	1	1	9,500	29	22	1	1	3
Hudson,	1	428	1	1	17	3	6	435	22,545	1	1	1	1	1
Hull,	1	1,060	2	1	1	1	1	1	1	1	1	1	1	1
Ipswich,	1	285	1	1	1	1	1	1	7,006	1	1	1	1	174
Mansfield,	1	311	2	9	21	2	4	500	1,371	57	1	1	1	1
Marblehead,	1	1,025	1	1	42	1	1	1	1	1	1	1	1	1
Merrimac,	1	83	1	1	8	1	1	1	1	1	1	1	1	1

Middleborough,	376	3	5	30	15	5	500	1,450	8,000	—	—	—	40
Millers Falls,	111	—	1	3	—	—	—	—	—	—	—	—	3
North Attleborough,	561	5	4	21	5	6	600	17,833	—	—	—	—	5
Norwood,	413	1	3	10	1	5.5	500	5,620	4,900	—	—	—	1
Peabody,	919	3	63	—	{	{	{	{	803	3	—	—	156
Reading,	790	3	—	30	4	5	550	18,604 ²	—	—	—	—	129
Rowley,	32	—	—	—	—	—	—	326	260	—	—	—	—
Shrewsbury,	110	—	—	15	—	—	—	1,250	2,500	—	—	—	—
Taunton,	500	55	40	42	{	{	{	{	2,000	—	—	—	319
Templeton,	124	1	5	16	58	6	450	17,500	750	—	—	—	1
Wakefield,	353	2	4	5	31	6.6	475	1,900	—	—	—	—	54
Wellesley,	501	1	8	7	6	5	550	16,100	850	—	—	—	1
West Boylston,	49	—	—	—	1	—	600	1,040	—	—	—	—	—
Westfield,	236	—	48	39	16	6	660	—	—	—	—	—	135

¹ No record.² Includes 40 watt tungsten lamps.

TABLE 7. — *Gas Plant Statistics.*

The following tables exhibit data of interest concerning these plants and their operations: —

For the Year ending June 30, 1911.

	Holyoke.	Middle-borough.	Wakefield.	Westfield.
Daily capacity of works (feet), . .	1,700,000	24,000	350,000	135,000
Greatest output (feet),	796,592	7,000	161,200	160,400
Date of same,	Dec. 24	Dec. 24	Dec. 30	Dec. 24
Least output (feet),	383,118	3,000	59,400	67,500
Date of same,	March 26	April 9	June 5	July 10
Gas made (feet), year ending June 30, 1911,	198,104,800	1,305,000	40,717,000	36,896,400
Gas made (feet), year ending June 30, 1910,	191,875,000	1,299,080	36,508,000	31,696,500
Gas sold by meter (feet), year ending June 30, 1911,	176,242,600	905,600	23,839,800	33,659,107
Gas sold by meter (feet), year ending June 30, 1910,	171,710,300	848,200	21,970,900	29,883,400
Gas supplied to public buildings (feet), year ending June 30, 1911,	1,218,200	10,800	224,000	231,400
Gas sold to other plants June 30, 1911 (feet),	—	—	7,292,700	—
Gas sold to other plants June 30, 1910 (feet),	—	—	6,657,900	—
Gas used at works and offices (feet), year ending June 30, 1911,	1,108,700	35,000	147,400	204,800
Gas unaccounted for (feet), year ending June 30, 1911,	19,533,671	353,600	9,215,500	2,799,293
Percentage unaccounted for, 1911,	9.86	27.10	22.63	7.59
Percentage unaccounted for, 1910,	9.08	30.50	20.63	3.73
Total sales of gas 1910-11 (feet),	177,510,600	916,400	31,356,500	33,890,507
Increase over 1909-10 (per cent),	2.46	4.98	8.60	12.58
Gas sold per mile of main (feet),	3,526,488	287,088	1,059,776	1,591,967
Gas unaccounted for per mile of main (feet),	388,063	110,756	311,462	131,494
Number of consumers per mile of main,	221.7	47.9	49.2	93.4
Gas sold per consumer (feet),	15,795	5,919	16,374	16,919
Gas materials used,	— ¹	— ²	— ³	— ⁴
Fuel used,	— ⁵	— ⁶	— ⁷	— ⁸

¹ Oil, 477,733 gallons; benzol, 33,210 gallons.

² Fuel oil, 38,648 gallons.

³ Fuel oil, 49,008 gallons.

⁴ Cannel, 51½ tons; benzol, 2,206 gallons.

⁵ Gas coal, 7,660 tons; coke, 276,640 bushels; tar 2,300 gallons.

⁶ Coal, 48 tons.

⁷ Gas coal, 3,108 tons; coke, 931 tons.

⁸ Gas coal, 3,546.6 tons; coke, 1,255½ tons.

TABLE 8. — *Street Mains, — Meters.**Street Mains. — Length in Feet, of Each Size, June 30, 1911.*

	Holyoke.	Middle- borough.	Wakefield.	Westfield.
One inch,	1,441	195	8,616	—
One and one-quarter inch,	4,401	50	6,287	475
One and one-half inch,	2,343	375	25,173	913
Two inch,	9,335	1,726	31,457	5,845
Two and one-half inch,	380	—	338	—
Three inch,	70,259	13,685	25,508	68,444
Four inch,	82,260	826	24,215	25,011
Six inch,	50,888	—	12,556	7,140
Eight inch,	26,976	—	—	3,053
Ten inch,	—	—	2,600	—
Twelve inch,	10,475	—	—	1,722
Fifteen inch,	440	—	—	—
Sixteen inch,	6,578	—	—	—
Total length,	265,778	16,857	156,224 ¹	112,403
Length in miles and feet, { miles,	50	3	29	21
feet,	1,776	1,017	3,104	1,523
Increase during year,	8,738	—	1,070	3,284

Meters. — Number of Each, June 30, 1911.

Two light,	—	—	11	—
Three light,	10,675	106	1,245	1,817
Five light,	167	25	163	115
Ten light,	171	12	14	29
Twenty light,	65	6	10	12
Thirty light,	35	2	3	6
Thirty-five light,	—	—	1	—
Forty-five light,	23	—	1	3
Fifty light,	2	2	4	2
Sixty light,	10	—	—	2
Eighty light,	5	—	1	2
One hundred light,	6	—	1	—
One hundred and fifty light,	3	—	1	—
Two hundred light,	5	—	—	—
Three hundred light,	1	—	1	—
Total number in use June 30, 1911,	11,158	153	1,456	1,988
Increase during year,	819	4*	98	138

¹ Includes 19,504 feet three-quarter-inch main.

* Decrease.

APPENDIX G. — ABSTRACTS OF ACCIDENTS.

In accordance with section 39 of chapter 121 of the Revised Laws, the Board herewith presents abstracts of the cases reported resulting in death or bodily injury from gas and electricity manufactured and sold during the year 1911.

GAS.

Fatal Cases.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Jan. 1	James E. Moulton, .	55	Brookfield,	Water, .	Gas inhaled through rubber tube attached to open burner.
9	John Litton,	48	Boston: 19a Faneuil Hall Square, .	Mixed, .	Gas escaped from gas range. .
12	Michael Wall,	50	Boston: 51 Beach Street,	Mixed, .	Burner left open.
17	Pauline G. Hatch,	62	New Bedford: 275 Acushnet Avenue, .	Mixed, .	Burner left open; suicide.
20	George E. Davis,	45	Malden: St. Albans Hotel,	Mixed, .	Burner left open; accidental.
20	Mrs. Emma G. Grant,	60	Danvers: 177 Maple Street,	Coal, .	Burners of gas range left open; suicide.
20	Le Prelate M. Bates,	69	Boston: Crawford House,	Mixed, .	Gas inhaled through rubber tube attached to open burner.
23	Harry Gordon,	28	Boston: 41 Oswego Street,	Mixed, .	Burner of radiator left open; suicide.
28	Annie Hunter,	48	Boston: 348 Tremont Street,	Mixed, .	Gas inhaled through rubber tube attached to open burner.
29	William Smith,	34	Lynn: 25 Buffum Street,	Mixed, .	Burner left open; suicide.
29	James Rogers,	73	Haverhill: 7 Murray Court,	Mixed, .	Burner left open; accidental.

31	William Vickery,	.	.	81	Fall River: 70 Hambley Street, .	Water, .	Burner left open.
Feb. 2	Arthur Bechand,	.	.	36	New Bedford: 773 South First Street, .	Mixed, .	Burner left open; suicide.
3	Timothy Canavan,	.	.	37	Holyoke: 31 High Street, .	Mixed, .	Gas inhaled through rubber tube attached to open burner.
6	Arthur Vincent,	.	.	50	Haverhill: 243 Washington Street, .	Water, .	Burners left open; accidental.
6	Frank Goulet, .	.	.	59			
8	Chas. E. Dana,	.	.	72	New Bedford: Acushnet Avenue, .	Mixed, .	Gas cock of stove in lunch cart left open; accidental.
9	Ardelle H. Wardwell,	.	.	64	Boston: 93 Revere Street, .	Mixed, .	Died of pneumonia following gas poisoning; gas escaped from bracket fixture.
11	Chas. H. Kimball,	.	.	24	Haverhill: 19 How Street, .	Water, .	Burner left open; suicide.
11	Wm. T. Phinney,	.	.	52	Haverhill: 20 Portland Street, .	Water, .	Gas inhaled through rubber tube attached to open burner.
12	Theresa Driscoll,	.	.	33	Haverhill: 94 Primrose Street, .	Water, .	Burner left open.
14	John Hannon, .	.	.	25	Boston: Revere House, .	Mixed, .	Burner left open; accidental.
17	John H. English,	.	.	52	Boston: 14 Derne Street, .	Mixed, .	Gas inhaled through rubber tube attached to open burner.
17	Alpheus T. Marston,	.	.	33	Boston: 56 Gurney Street, .	Mixed, .	Gas escaping from gas stove in kitchen entered bedroom.
18	John J. Donovan,	.	.	81	Boston: 236 Shawmut Avenue, .	Mixed, .	Burner left open; accidental.
19	Wm. H. Topham,	.	.	52	New Bedford: 195 Purchase Street, .	Mixed, .	Key to gas heater left open; accidental.
19	Mrs. Alice Porter,	.	.	36	Brockton: 5 Whipple Avenue, .	Mixed, .	Gas inhaled through improvised tube of paper.
21	Mrs. Susan S. Burton,	.	.	68	Malden: 394 Highland Avenue, .	Mixed, .	Burner left open; suicide.
23	James H. Holme,	.	.	50	Lowell: 21 Carter Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner.
23	Paul Dane,	.	.	19	Boston: 113 Northampton Street, .	Mixed, .	Burner left open; accidental.
23	Emma Dane, .	.	.	14			

Fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Feb. 26	Joseph McNine, .	53	North Adams: 19 Bank Street, .	Coal, .	Gas inhaled through rubber tube attached to burner.
27	Walter F. Trill, .	35	New Bedford: 50 Russell Street, .	Mixed, .	Gas stove attachment left open and hose pulled away.
28	John Flechtner, .	53	Fitchburg: 1 Frankford Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner.
March 3	William Herbert, .	40	Haverhill: 119 Elm Street, .	Water, .	Burner left open; accidental.
6	Michael Duffy, .	70	Boston: 1115 Washington Street, .	Mixed, .	Burner left open.
6	Philip Smolar, .	28	New Bedford: 229 State Street, .	Mixed, .	Pipe of gas stove disconnected; suicide.
9	Wm. H. Reynolds, .	42	Boston: 23 Regent Street, .	Mixed, .	Gas inhaled through tubing connected with hot-plate.
12	Imogene Chamberlain, .	50	Boston: 568 Columbus Avenue, .	Mixed, .	Gas inhaled through rubber tube attached to open burner.
12	John Pickett, .	75	Jamaica Plain: 117 Green Street, .	Mixed, .	Burner left open; suicide.
17	Henry L. Bates, .	72	Springfield: 149 Sherman Street, .	Mixed, .	Defective connection with gas heater in room below the one occupied by Mr. Bates and gas probably entered his room through register.
21	Samuel Bromberg, .	22	Boston: 6 Arbutus Street, .	Mixed, .	Burner left open; suicide.
28	Florence Larochele, .	48	Revere: 46 Shirley Avenue, .	Mixed, .	Burner left open; accidental.
29	Lee I. Macauley, .	25	Waltham: 94 Adams Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner.
31	Sarah Buckley, .	49	Fall River: 679 Birch Street, .	Water, .	Burner left open; suicide.
Apr. 3	Wm. T. Whiteway, .	56	Cambridge: 70 Fairmount Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner.
9	Herbert W. Pingree, .	65	Lowell: 280 Appleton Street, .	Mixed, .	Burner left open; suicide.

10	Karl Raube, . . .	73	Boston: 24 W. Dedham Street, . .	Mixed, .	Burner left open; accidental.
12	Edwin N. Simonds, . .	60	Winchester: 45 Myrtle Terrace, .	Water, .	Gas inhaled through rubber tube attached to burner.
13	Hyman Lerner, . . .	54	Boston: 2 Chambers Court, . .	Mixed, .	Burner left open.
13	Mrs. Julia Sheehan, . .	65	Brighton: 12 Peaceable Street, . .	Mixed, .	Burner left open; accidental.
15	Two unknown men, . .	-	Boston: 2 Florence Street, . .	Mixed, .	Burner left open; accidental.
15	Felix Kornfeld, . . .	55	Brookline: 51 Naples Road, . .	Mixed, .	Apparently turned on gas when pulling chain to light electric lamp on combination fixture; accidental.
18	Robert Clark, . . .	77	New Bedford: 490 Union Street, .	Mixed, .	Burner left open; accidental.
30	Wm. H. Jameson, . .	49	Winthrop: 29 Plummer Avenue, .	Mixed, .	Burner left open; accidental.
May	Margaret Hagerty, . .	10	Boston: 101 Calumet Street, . .	Mixed, .	Gas turned on while children asleep; homicidal.
3	Marie Hagerty, . . .	7			
3	Annie Hagerty, . . .	5	South Boston: 280 Silver Street, .	Mixed, .	Burner left open; suicide.
5	Wm. Wiegand, . . .	53			
5	Martha Wiegand, . .	48	Springfield: 61 Bridge Street, . .	Mixed, .	Gas escaped from open burner through prepayment meter; accidental.
7	Thomas McGovern, . .	55	New Bedford: 625 Purchase Street, .	Mixed, .	Burner left open; suicide.
8	Annie Saxon, . . .	54	Malden: 108 Essex Street, . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
9	Mrs. Etta Nudelman, .	-	Haverhill: 2 Bartlett Street, . .	Mixed, .	Burners left open; suicide.
12	George Ham, . . .	84	Boston: 4 Spring Street, . .	Mixed, .	Burners left open; suicide.
15	Harry Levinson, . . .	25	Boston: 736 Washington Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner.
15	Charles Godfrey, . .	60	Springfield: 44 Wolcott Street, . .	Mixed, .	Burner left open; accidental.
15	Louis W. Alexander, .	44			

Fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
May 31	Jennie M. Purdy, . . .	38	Boston: 74 West Brookline Street, . .	Mixed, .	Burners left open; suicide.
June 4	Arthur W. Clapp, . . .	43	Swampscott: 198 Humphrey Street, . .	Mixed, .	Burners left open; suicide.
17	Augustus P. Gilman, . .	66	Haverhill: 30 Vine Street, . . .	Water, .	Burners left open; suicide.
21	William S. Houde, . . .	63	New Bedford: corner County and Wald streets.	Mixed, .	Burners left open; suicide.
27	Louis Adam, . . .	40	Springfield: 821 State Street, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
28	Elijah H. Mansur, . . .	75	Brookline: 22 High Street, . . .	Mixed, .	Burners left open; suicide.
29	Unknown man, . . .	-	Boston: 14 Burroughs Place, . . .	Mixed, .	Burners left open; suicide.
July 6	Theodore Stemmler, . . .	-	Brockton: Hotel Norris, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
25	Charles A. Hoyt, . . .	45	Boston: 44 Fairmount Street, . . .	Mixed, .	Burners left open; suicide.
Aug. 9	George I. Tarr, . . .	35	Haverhill: 111 Emerson Street, . .	Water, .	Burners left open; suicide.
10	Minnie Grishaver, . . .	28	Dorchester: 19 Helen Street, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
10	Edmund J. Bemis, . . .	27	Boston: 3 Pelham Street, . . .	Mixed, .	Burners left open; suicide.
15	Pietro Drio, . . .	38	Haverhill: 9 Smith Street, . . .	Water, .	Burner left open; accidental.
26	Peter Little, . . .	25	Fitchburg: 190½ Fairmount Street, . .	Mixed, .	Burners left open; suicide.
28	Samuel Rosen, . . .	24	Lawrence: 5 Keighley Court, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
30	Isabella Adams, . . .	58	Boston: 11 Plain Street, . . .	Mixed, .	Found in closet opening from bath room with gas escaping from open burner in bath room and from a gas stove in the closet; bath room door locked from within; suicide.

Sept.	6	Catherine Kravka, . . .	73	New Bedford: 156 Tallman Street, . . .	Mixed, . . .	Burner left open; suicide.
	7	Edward Boudreau, . . .	45	Fall River: 63 Peckham Street, . . .	Water, . . .	Burner left open; suicide.
	9	James Walmsley, . . .	55	Fall River: 568 Plymouth Avenue, . . .	Water, . . .	Burners of gas stove left open; accidental.
	10	John Triggs, . . .	63	Springfield: 142 Western Avenue, . . .	Mixed, . . .	Burner left open; accidental.
	14	Mrs. Ann Young, . . .	72	Lowell: 163 Crosby Street, . . .	Mixed, . . .	Burner left open; accidental.
	15	Thomas Deignan, . . .	60	Webster: 16 Main Street, . . .	Water, . . .	Burner left open; accidental.
	15	Reuben C. Small, . . .	75	Fall River: 38 Hillside Street, . . .	Water, . . .	Burner of gas heater left open; accidental.
	17	Patrick J. Hayes, . . .	62	Brookline: 285 Washington Street, . . .	Mixed, . . .	Burner left open; suicide.
	17	Mrs. Mary E. Hill, . . .	88	Lynn: 25 Oneida Street, . . .	Mixed, . . .	Burner left open; accidental.
	19	Peter Costello, . . .	50	Boston: 185 Hanover Street, . . .	Mixed, . . .	Gas inhaled through rubber tube attached to burner.
	21	George A. Love, . . .	21	Worcester: 126 Front Street, . . .	Mixed, . . .	Burner left open; suicide.
	24	Elizabeth A. Webster, . . .	65	Boston: 1004 Boylston Street, . . .	Mixed, . . .	Burner left open; accidental.
	25	Stephen McNeil, . . .	25	Wellesley: 1 Forest Street, . . .	Mixed, . . .	Burner left open; suicide.
	27	Stephen E. Greene, . . .	68	Worcester: 73 Merrick Street, . . .	Mixed, . . .	Burner left open; suicide.
	28	Elizabeth St. Laurent, . . .	15	Salem: 32 Winthrop Street, . . .	Mixed, . . .	Burner left open; accidental.
Oct.	1	Nykola Zudola, . . .	-	Boston: 121 Causeway Street, . . .	Mixed, . . .	Burner left open; accidental.
	1	Louis Stenkle, . . .	50	Boston: 230 Silver Street, . . .	Mixed, . . .	Burner left open; accidental.
	7	Aviavoin Naslor, . . .	25	Haverhill: 5 Walnut Street, . . .	Water, . . .	Burner left open; accidental.
	8	Michael Petkevics, . . .	29	Lynn: 40 Morris Street, . . .	Mixed, . . .	Burner left open; accidental.
	9	Whittaker Parkinson, . . .	60	New Bedford: 850 South First Street, . . .	Mixed, . . .	Burner left open; accidental.

Fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Oct. 9	Levi White, . . .	64	North Adams: 1582 Massachusetts Avenue.	Mixed, .	Burner of gas range left open; accidental.
9	Royal S. Rogers, . . .	73	Brockton: Hotel Victoria, . . .	Mixed, .	Burners left open; suicide.
11	George H. Page, . . .	-	Newton: 26 Sterling Street, . . .	Mixed, .	Burner left open; accidental.
12	Jennie Sorrota, . . .	28	Roxbury: 76 Lawrence Avenue, . . .	Mixed, .	Burner left open; suicide.
12	Mary Murray, . . .	40	Boston: 84 Walham Street, . . .	Mixed, .	Burners left open; suicide.
13	Charles A. Spencer, . . .	54	Lowell: corner Prescott and Central streets.	Mixed, .	Tubing connecting gas range had become detached; accidental.
14	Nelson Maurice, . . .	38	Springfield: 73 Vernon Street, . . .	Mixed, .	Gas escaped from gas stove connection; accidental.
14	Carl E. Erickson, . . .	61	Worcester: 16 Prentice Street, . . .	Mixed, .	Burner left open; accidental.
17	Bernard Brodsky, . . .	-	Boston: Preble House, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
20	Martin O'Donnell, . . .	45	South Boston: 41 A West Sixth Street, . . .	Mixed, .	Burner left open; accidental.
24	James McClintock, . . .	53	Worcester: 238 Grafton Street, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
26	Mrs. Emily A. Ellis, . . .	84	Boston: 192 Dartmouth Street, . . .	Mixed, .	Burner left open; accidental.
27	Peter Lavarriere, . . .	60	New Bedford: 1103 South Water Street, . . .	Mixed, .	Burner left open; suicide.
Nov. 1	Roscoe E. Ricker, . . .	-	Gloucester: Harvard House, . . .	Mixed, .	Burner left open; suicide.
3	Wm. H. Holgate, . . .	66	Lowell: 23 Harris Avenue, . . .	Mixed, .	Burner left open; suicide.
5	George A. Adams, . . .	60	Lynn: Hotel Congress, . . .	Mixed, .	Burner left open; accidental.
5	Mary Hines, . . .	24	Dorchester: 8 Bruce Street, . . .	Mixed, .	Burner left open; accidental.

7	Mrs. Emma H. Adams,	48	Brookline: 222 Washington Street,	Mixed,	Burner left open; accidental.
14	Vasiliki Soula, .	20	Lowell: 155 Market Street,	Mixed,	Burner left open; suicide.
14	Reuben Woodward,	86	Boston: 45 Charles Street,	Mixed,	Burner left open; accidental.
15	Harriet E. Bowen,	70	Attleborough: 115 Park Street,	Coal,	Clothing burned probably from contact with open gas flame.
17	Mrs. Ella C. Davis,	58	Springfield: 21 Clarendon Street,	Mixed,	Burner left open; accidental.
17	Charles R. Dutton,	34	Boston: 766 Dudley Street,	Mixed,	Gas inhaled through rubber tube attached to burner.
25	Alice C. Robinson,	45	Boston: 54 Union Park Street,	Mixed,	Burners left open; suicide.
27	Patrick Levangie,	31	Brockton: 72 Denton Street,	Mixed,	Burners left open; suicide.
27	Wm. Taylor,	66	Springfield: 544 Main Street,	Mixed,	Burner left open; suicide.
30	Arthur McArthur,	-	Boston: 161 Massachusetts Avenue,	Mixed,	Burners left open; suicide.
Dec. 1	Mrs. Isabella Inglis,	54	Hyde Park: 57 Dana Avenue,	Mixed,	Burner of gas stove left open; accidental.
2	Eugene Costa,	27	Boston: 138 Eliot Street,	Mixed,	Burners left open; suicide.
3	Thomas Sullivan,	-	Adams: Greylock Rest,	Mixed,	Gas escaped from defective fixture.
3	Joseph M. Malone,	57	Lawrence: 11 Summer Street,	Mixed,	Burner left open; accidental.
4	Joseph Volpi,	19	Webster: Hotel Maanexit,	Water,	Burner left open; accidental.
5	Francis Jackson,	73	Brockton: 119 Harvard Street,	Mixed,	Burner left open; accidental.
5	Lee E. Stearns,	56	Springfield: 79 Vernon Street,	Mixed,	Burner left open; suicide.
5	Sarah Goodman,	50	Lowell: 113 Howard Street,	Mixed,	Gas inhaled through rubber tube attached to burner.
6	Mrs. Julia Peterson,	48	Dorchester: 20 Blanche Street,	Mixed,	Burner left open; suicide.

Fatal Cases — Concluded.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Dec. 7	Edward J. Forbes, . .	40	Boston: 374 Shawmut Avenue, . .	Mixed, .	Gas inhaled through rubber tube attached to burner.
12	Bektaali Kiafesi, . .	24	New Bedford: 54 Davis Street, . .	Mixed, .	Gas escaped from defective fixture.
16	John T. McDermott, . .	23	Worcester: Catholic Young Men's Lyceum.	Mixed, .	Burner left open.
16	Dennis Collins, . .	58	South Boston: 661 East Fourth Street,	Mixed, .	Gas escaped from defective fixture.
23	Marderox Garabodian, . .	45	Salem: 136 Boston Street, . .	Mixed, .	Burner left open; suicide.
27	Catherine E. Cain, . .	-	Boston: 26 St. Stephen Street, . .	Mixed, .	Gas inhaled through tubing attached to open fixture; suicide.

Non-fatal Cases.

Jan. 3	Frank Connolly, . .	-	Charlestown: 7 Joiner Street, . .	Coal, .	Gas from open burner through prepayment meter.
4	Mrs. Levina Smith, . .	-	Malden: 71 Charles Street, . .	Mixed, .	Gas entered house from leak in high pressure main.
10	Anthony Lemieux, . .	34	Lynn: 117 Jefferson Street, . .	Mixed, .	Leak of gas from defective radiator tubing.
11	Meyer J. Feinberg, . .	-	Haverhill: Jewish Synagogue, . .	Water, .	Burned by explosion.
12	R. Coughlin, . .	42			
12	J. Coughlin, . .	38			
12	Mrs. D. Smith, . .	36			
12	D. Smith, . .	41			
12	Mary Smith, . .	15	Malden: 71, 72 and 75 Charles Street., .	Mixed, .	Nauseated by gas from a leaky main.

12	Mary Sullivan,	60				
12	Julia Sullivan, .	20				
12	Anna Sullivan,	16				
12	John Sullivan, .	32				
15	Arthur E. Coney,	29	Boston: 14 Temple Street,	Mixed, .	Burner left open.	
19	Harold Wescott,	-	Boston: 1115 Washington Street,	Mixed, .	Burner left open; attempted suicide.	
21	John Harrigan,	-				
21	Mrs. Harrigan,	-				
21	Bernice Harrigan,	7	Haverhill: 1 Norfolk Street,	Water, .	Gas entered cellar from broken street main.	
21	Mary Harrigan,	10				
21	John Harrigan,	8				
25	Genero Leone, .	29	Boston: 12 Hale Street,	Mixed, .	Gas escaped from gas radiator.	
25	Mary Mullen, .	-	Haverhill: 78 Main Street,	Water, .	Nauseated by gas entering house from leaky street main.	
31	Frederick Dessantis,	17	Worcester: 168 Shrewsbury Street,	Mixed, .	Burner left open; accidental.	
31	Cosmon Angelo,	12				
Feb. 1	Fred Morrison,	-				
1	Mrs. George Rausch,	-				
1	Annie Rausch, .	-	Lawrence: 7-9 Bennington Street,	Mixed, .	Slightly affected by escaping gas from a leaky main.	
1	Rose Rausch, .	-				
1	Ida Rausch,	-				

Non-fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Feb. 2	John Flaherty, .	-	Clinton: Gas Works, .	Water, .	Company employee overcome while cleaning purifying box.
7	Beatrice Mann, .	19	Boston: 556 Columbus Avenue, .	Mixed, .	Burner left open; accidental.
11	Angeline Gaffney, .	30	Boston: 25 Wigglesworth Street, .	Mixed, .	Burner left open; accidental.
15	George Paquin, .	-	Lowell: 15 Garnet Street, .	Mixed, .	Injured by explosion due to combination of gas from broken fixture and lighted cigarette. Attempted suicide.
17	Lillian T. Marston, .	32	Boston: 56 Gurney Street, .	Mixed, .	Gas escaping from gas stove in kitchen entered bedroom; accidental.
17	Jacob Nasher, .	-	Malden: Jewish Synagogue, .	Mixed, .	Burned by explosion while attempting to locate a leak.
18	Herbert Rose, .	39	Roxbury: 194 Thornton Street, .	Mixed, .	Burner left open; accidental.
22	Patrick Scully, .	37	Worcester: 16 Orange Street, .	Mixed, .	Burner of heater left open; accidental.
23	Alice Dane, .	16	Boston: 113 Northampton Street, .	Mixed, .	Burner left open; accidental.
23	Max Bloomberg, .	11			
23	Edward Bloomberg, .	9			
26	William Congress, .	41	Fitchburg: near 75 Daniels Street, .	Mixed, .	Company employee. While tapping a main was partially overcome by escaping gas.
26	John Buski, .	-	Springfield: 128 Ferry Street, .	Mixed, .	Burner left open.
26	Weston Demone, .	28			
26	Gertrude Demone, .	24			
26	Arthur Demone, .	3			
26	Emma Silver, .	22			

26	Sadie Silver,	.	19				
26	John C. Corey,	.	26				
26	Mrs. C. Corey,	.	28				
26	Corey boy,	.	8 da.		Medford: 69, 71 Winchester Street,	Mixed,	Slightly affected by gas escaping from a leaky street main.
26	John Corey,	.	20 mo.				
26	Mary Welsh,	.	39				
26	Beessie Crowley,	.	24				
26	Lester C. Francis,	.	20				
26	Ethel L. Francis,	.	24				
26	Emma L. Francis,	.	11 wk.				
26	Ethel M. Francis,	.	25				
Mar. 1	Mrs. Mary Barthelmees,	.	42				
1	Mildred Barthelmees,	.	17				
1	Westley Barthelmees,	.	11		Everett: 55 Baldwin Avenue,	Mixed,	Slight headaches caused by gas from a leak on the inlet lead of meter.
1	James D. Desantis,	.	23				
2	Lena Hall,	.	22		Boston: 45 Appleton Street,	Mixed,	Burners left open; accidental.
3	George W. Walker,	.	-				
3	W. H. Roswell,	.	-		Haverhill: 32-34 Locust Street,	Water,	Firemen. Overcome by gas from broken chandelier.
3	Nellie Kelleher,	.	-				
3	Mrs. Mary Breslin,	.	-		Malden: 28 Eastern Avenue,	Mixed,	Slight headaches caused by gas escaping from high pressure main.

Non-fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Mar. 4	Elmer D. Hughes,	28	Boston: 15 Dwight Street,	Mixed.	Burner left open; attempted suicide.
6	Edward Across,	19	Boston: 11 Lindall Place,	Mixed.	Burner left open; accidental.
6	James P. Cronin,	-	Haverhill: North Avenue,	Water.	Company employee. While setting a meter overcome by gas from defective fitting.
13	John Barretto,	-	Malden: 177 Charles Street,	Mixed.	Slightly affected by gas from leak in high pressure main.
13	Mrs. Barretto,	-		Mixed.	
17	Mrs. Hannah Dow,	27	Lynn: 381 Broadway,	Mixed.	Gas inhaled through rubber tube; attempted suicide.
17	William Dow,	2		Mixed.	
18	Joseph Stewart,	27	Boston: Crawford House,	Mixed.	Burner left open; accidental.
20	Sidney Mullins,	-	Springfield: Main Street,	Mixed.	Company employee. Overcome while at work on a gas fixture.
22	Cornelius Doherty,	47	Boston: 7 Bowdoin Street,	Mixed.	Burner left open; attempted suicide.
23	Albert K. Barrows,	15	Haverhill: 16 Dudley Street,	Water.	Burner left open; accidental.
31	Adelaide Beals,	60	Boston: 4 Worcester Square,	Mixed.	Burner left open; accidental.
Apr. 6	Susan C. Lienhard,	45	Somerville: 36 Springfield Street,	Coal.	Slightly affected by escaping gas from street main.
6	Susan J. Boyd,	32		Coal.	
6	R. Arthur Boyd,	12 d.			
7	Joseph E. Arsenault,	26	Worcester: 148 Maywood Street,	Mixed.	Burner left open.
8	C. W. Jones,	50	Springfield: 11 Stearns Park Place,	Mixed.	Burner left open; accidental.

Non-fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
June 22	Mike Zarb, . . .	27	Fitchburg: Oak Hill Road, . . .	Mixed, .	Company employee; while at work on a leaky main, slightly overcome.
27	Louis Gardner, . . .	-	Fitchburg: Main, opposite Wallace Street, . . .	Mixed, .	Company employee; overcome while at work in a manhole.
July 1	Edward Peacock, . . .	17	South Boston: 52 P Street, . . .	Mixed, .	Burner left open; accidental.
4	Mike Sala, . . .	36	Haverhill: 62 Primrose Street, . . .	Water, .	Burner left open; accidental.
5	William Congress, . . .	39	Fitchburg: Phelps Street, . . .	Mixed, .	Company employee; slightly overcome while connecting service pipe.
6	Sam Julien, . . .	-	Williamstown: corner Main and Water streets.	Coal, .	Company employees; while relaying gas main were overcome by extreme heat and escape of gas.
6	Herbert Morey, . . .	-		Coal, .	Burner left open; accidental.
6	David Mathews, . . .	-		Mixed, .	Burner left open.
13	James Moore, . . .	-	Lynn: 223 Chestnut Street, . . .	Mixed, .	Burner left open; accidental.
16	Jeremiah J. Murphy, . . .	35	Cambridge: 90 Tremont Street, . . .	Mixed, .	Burner left open.
21	James Mulready, . . .	49	Cambridge: 23 Marcella Street, . . .	Mixed, .	Burner left open; accidental.
25	Frank Estes, . . .	-	North Adams: Gas Works, . . .	Coal, .	Company employee; while at work on purifying box, overcome.
Aug. 5	Paascal Morneau, . . .	-	Salem: corner Boston and Essex streets, . . .	Coal, .	Company employee; overcome while making main connections
8	Everett A. Kimball, . . .	-	Springfield: 175 Sharon Street, . . .	Mixed, .	Firemen; during a fire solder around meter connection was melted.
8	Arthur H. Strong, . . .	-		Mixed, .	
8	Frank Sullivan, . . .	-		Mixed, .	
8	Albert W. Keyes, . . .	-		Mixed, .	

11	James P. King,	45	Boston: Thos. N. Hart School,	Mixed,	Burner left open; accidental.
25	Timothy O'Connor,	-	Springfield: Main Street,	Mixed,	Company employee; while breaking out connection in main was overcome.
29	Mrs. G. W. Butler,	-	Medford: 60 Cushing Street,	Mixed,	Nauseated by leaking gas.
30	Mrs. Callahan,	-			
30	Cornelius Callahan,	-			
30	John Callahan,	-			
30	Charles Callahan,	-			
30	Elisabeth Callahan,	-			
30	Alice Callahan,	-			
30	Mrs. Hannah Pickett,	-	Malden: 34 and 38 Sherman Street,	Mixed,	Affected with nausea and headache by gas from a leaky main.
30	Abraham Mkhitarian,	-			
30	Mrs. Abraham Mkhitarian,	-			
30	Oalex Mkhitarian,	-			
30	Priscilla Mkhitarian,	-			
30	Asion Mkhitarian,	-			
30	Mrs. M. Buckley,	-	Malden: 183 Charles Street,	Mixed,	Affected with nausea and headache by gas from a leaky main.
Sept. 4	Ada H. Wellington,	76	Cambridge: 177 Prospect Street,	Mixed,	Tube had become detached from gas stove; accidental.
6	Equilla Charleston,	23	Worcester: 223 Chandler Street,	Mixed,	Burners left open; attempted suicide.
6	Mrs. O'Hara,	-	Medford: 28 Farragut Avenue,	Mixed,	Burned slightly by explosion in gas range.

Non-fatal Cases — Continued.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Sept. 13	Frank Ripley, .	-	Malden: Eastern Avenue, .	Mixed, .	Company employee; overcome while putting in high pressure service. Burner left open; accidental.
18	Patrick Hyland, .	30	Haverhill: Hotel Arlington, .	Water, .	
19	J. J. Huckaby, .	22	Boston: 39 Merrimac Street, .	Mixed, .	
20	Samuel Orris, .	17	Chelsea: 61 Poplar Street, .	Mixed, .	Burner left open; attempted suicide.
24	A. E. Haskins, .	-	North Adams: 49 Hall Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner; attempted suicide. Gas escaped through defective tubing.
28	Hartley Coupe, .	75	{ Lawrence: 166 High Street, .	Water, .	Burners of radiators left open; accidental.
28	Mrs. Coupe, .	70			
Oct. 1	Edward F. Marston, .	22	{ Boston: 38 Worcester Square, .	Mixed, .	Burner left open; accidental.
1	Hannah Marston, .	22			
8	Frank Chick, .	25	Haverhill: 17 Washington Avenue, .	Water, .	Burner left open.
9	Enoch Schofield, .	54	New Bedford: 850 South First Street, .	Mixed, .	Burner left open; accidental.
9	Mrs. Sophia White, .	-	North Adams: 1582 Massachusetts Avenue, .	Mixed, .	Burner of gas range left open; accidental.
11	Victor E. Guetin, .	20	Boston: 88 Pembroke Street, .	Mixed, .	Burner left open; attempted suicide.
11	Dora Forma, .	13	{ Boston: 32 Albion Street, .	Mixed, .	Burner left open; accidental.
11	Bertha Jacobs, .	17			
11	Joseph Pratt, .	-	Fall River: 237 Madison Street, .	Water, .	Burned by explosion of gas in water heater.

12	Hugh Boyd, .	4	Springfield: corner North and Patten streets.	Mixed, .	Elbow pipe in which was a leak had been left exposed and these boys were overcome by fumes.
12	John Boyd, Jr., .	5			
14	Frank Ruggiero, .	-	Malden: Charles Street, .	Mixed, .	While working in a manhole overcome by leaking gas.
14	Frances Keay, .	-	Boston: 473 Beacon Street, .	Mixed, .	Gas fitter turned on gas and left two ½" outlets open.
19	James J. Leary, .	40	Boston: 88 West Canton Street, .	Mixed, .	Burner left open; accidental.
19	James McMullen, .	35	Brookline: 33 Aspinwall Avenue, .	Mixed, .	Burner left open; accidental.
21	A. A. Fairbanks, .	-	North Adams: Mansion House, .	Mixed, .	Burner left open; accidental.
26	Arthur J. Knowles, .	50	Cambridge: 129 Austin Street, .	Mixed, .	Gas inhaled through rubber tube attached to burner; attempted suicide.
29	Daniel Sullivan, .	45	South Boston: 91 West Broadway, .	Mixed, .	Burner left open; accidental.
30	Mrs. Mary Ryan, .	70	Malden: 30 Hubbard Street, .	Mixed, .	Burners were not turned off when gas supplied by prepayment meter went out. When more money was put in escape of gas resulted.
30	Edward L. Currant, .	31	Boston: in front of 89 Court Street, .	Mixed, .	Burned by explosion of gas in a telephone manhole.
Nov. 4	William J. Landers, .	52	Boston: 888 Huntington Avenue, .	Mixed, .	Gas inhaled through rubber tube attached to burner; attempted suicide.
5	Frank J. Foster, .	30	Leominster: Leominster Hotel, .	Water, .	Burner left open; accidental.
10	Frank Karesnigor, .	17	Boston: 35 Wall Street, .	Mixed, .	Burner left open; accidental.
10	James Kellogg, .	-	West Springfield: corner Main and Spring streets.	Mixed, .	Burner left open; accidental.
14	Margaret O'Connor, .	40	Boston: 2 Chambers Street, .	Mixed, .	Gas escaped from defective fixture.
14	Philip Ayotte, .	22	Lowell: 223 Appleton Street, .	Mixed, .	Burner left open; accidental.
18	Abraham Levine, .	-	Boston: 38 Lowell Street, .	Mixed, .	Burner left open; accidental.

Non-fatal Cases — Concluded.

Date.	NAME.	Age.	City or Town.	Kind of Gas.	Remarks.
Nov. 20	Frans J. Yung, . . .	22	Boston: 101 James Street, . . .	Mixed, .	Gas inhaled through rubber tube attached to burner; attempted suicide.
21	F. R. Jones, . . .	45	Boston: 21 Hollis Street, . . .	Mixed, .	Defective key of gas radiator.
21	Joseph Kraihanvel, . . .	-	} New Bedford: 143 Nye Street, . . .		
21	Mrs. Kraihanvel and child, . . .	-			
21	Martin Glasier, . . .	-			
21	Mrs. Glasier and two children, . . .	-			
21	Albert Yates, . . .	-			
21	Mrs. Yates and three children, . . .	-	} Fitchburg: 167 Canton Street, . . .		
24	John O'Donnell, . . .	-			
24	James McBride, . . .	-			
26	Ignatius Ocnos, . . .	23	Brookton: 68 High Street, . . .	Mixed, .	Company employees. Mr. O'Donnell was overcome by gas escaping from service pipe in cellar and Mr. McBride in attempting to assist him was partially overcome.
27	Mrs. Albert Airey and daughter, . . .	10	New Bedford: 141 Holly Street, . . .	Mixed, .	Partially overcome. Gas escaped from open burner through prepayment meter.
28	Elmer Chick, . . .	-	Chelsea: corner Elm Street and Everett Avenue, . . .	Mixed, .	Burner of gas stove left open; accidental.
Dec. 1	Patrick Davey, . . .	35	Boston: 1453 Washington Street, . . .	Mixed, .	Company employee. Overcome while repairing mains.
2	John W. McIntosh, . . .	38	Roxbury: 37 Alexander Street, . . .	Mixed, .	Gas inhaled through rubber tube; attempted suicide.
3	William Crowley, . . .	-	Boston: 169 Court Street, . . .	Mixed, .	Burner left open; accidental.

5	Louis Schneider,	16	Boston: 22 Rochester Street,	Mixed,	Gas escaped from radiator; accidental.
6	James Garbarino,	-	Athol: South Street,	Water,	Company employee. Overcome while at work on a pipe.
8	William Howard,	50	Boston: 38 Montgomery Street,	Mixed,	Burner left open; accidental.
10	Leopold Viaria,	-	Gloucester: 292 Main Street,	Mixed,	Gas inhaled through rubber tube; attempted suicide.
12	Edward Moyland,	30	Malden: Hotel Benedict,	Mixed,	Gas inhaled through rubber tube; attempted suicide.
12	Ysen Vinokoski,	-	New Bedford: 54 Davis Street,	Mixed,	Gas escaped from defective fixture.
13	Stanislaus Piliforaki,	22	Worcester: Prentice House,	Mixed,	Burner left open.
18	Mrs. Celia Deborosky,	-			
18	Louis Deborosky,	7	Fall River: 114 Coval Street,	Water,	Gas escaped from supply pipe to which tubing was connected.
18	Benjamin Deborosky,	2½			
20	Ernest E. Leyon,	35	Worcester: 36 Arlington Street,	Mixed,	Burner left open; accidental.
23	John F. Bates,	-	Weymouth: 214 Washington Street,	Water,	Gas escaped from flanges of a valve in gas pipe, flowed underground and through a culvert into house.
23	Mrs. Bates,	-			
25	Yetta Walchman,	20	Chelsea: 148 Williams Street,	Mixed,	Gas escaped from defective fixture.
25	Jennie Suolovits,	9			
26	Patrick Kane,	-	Holyoke: 83 Main Street,	Mixed,	Burner left open; accidental.
29	Charles Hannon,	28	Boston: 117 Chandler Street,	Mixed,	Burner of gas heater left open; accidental.
29	Walter Vettors,	-	Braintree: Gas Works,	Water,	Company employee. Overcome while tapping line at inlet of exhaust.
30	L. A. Scribner,	-	Braintree: Gas Works,	Water,	Company employee. Overcome while plugging a hole in gas main at inlet of exhaust.

ELECTRICITY.
Fatal Cases.

Date.	NAME.	Age.	City or Town.	Remarks.
1911.				
Jan. 25	Ralph Howard,	19	Hatfield,	Company employee. While repairing a line came in contact with wire carrying 2,200 volts.
30	Frederick Manns,	29	West Boylston: Temple Street,	Company employee. While inspecting transformer came in contact with live wire.
Feb. 10	Lemuel J. Owen,	25	Winthrop: Shirley Street,	While working on pole came in contact with live wire.
24	Thomas O'Donnell,	17	Clinton: 77 Chace Street,	While removing gypsy-moth nests knife came in contact with line carrying 13,200 volts.
Apr. 20	Rocco Vernozza,	42	Swampscott: Puritan Road,	Picked up live wire lying across the sidewalk.
May 9	James J. Perry,	35	Mansfield: Main Street,	Employee of municipal plant. While at work on pole came in contact with live wire.
14	Daniel M. McLeod,	39	Beverly: near corner Railroad Avenue and Rantoul Street.	Policeman. While trying to revive an arc light received a shock.
26	Olaf Karlson,	29	Pittsfield: Elm Street,	While rigging guys on a derrick in construction of a bridge came in contact with live wire. Badly burned and died next day.
30	William P. Brennan,	28	Boston: Bedford Street,	Company employee. While at work in sub-station came in contact with a 6,900 volt oil switch.
June 30	John Campbell,	23	Pittsfield: North Street,	While at work on top of trolley pole touched live electric light wire.
July 12	Ovide Frechette,	37	Lowell: School and Rock streets,	Engaged with others raising a steel column. The column fell against an electric light wire breaking it. The broken wire falling against another column charged it with electricity. Mr. Frechette touching this, received a shock.
13	J. P. Higgins,	35	Pittsfield: East Street,	Telephone employee. Handling broken wire completed a circuit by coming in contact with a coil of curtain wire the end of which lay across iron brace of electric company.

15	Walter E. Anderson,	-	Hull: Nantasket Avenue, . . .	Employee of Weymouth Light & Power Company. While working on wires fell across wire carrying 2,300 volts.
18	Harry S. Bartholmew,	46	Revere: Beach Street and Ocean Avenue,	Company employee. Stringing wires he received a shock which caused him to fall to ground. Died as a result of fall.
19	James F. Slamin,	28	Wellesley: Chestnut Street,	Employee of municipal light department. While painting a pole came in contact with high tension wire.
21	John A. McLean,	26	Lowell: Thorndike Street,	Received shock from a 2,300 volt arc circuit while at work on a telephone pole.
24	Bernard McGinnity,	25	Dorchester: East Cottage Street,	Company employee. While working on a pole received a shock.
28	George W. Morse,	-	Cohasset: Main Street, . . .	Company employee. While working on pole received a shock.
30	B. Langobardi,	49	Norfolk: City Mills Depot,	Pushed a charged electric light wire from stone wall.
30	N. Potenza,	-		
Aug. 5	John Murray,	30	Lynn: Eastern Avenue, . . .	Telephone lineman. Coil of wire fell on 2,300 volt lines forming a ground.
9	Nicholas Quinn,	30	Auburndale: Washington Street,	Killed by coming in contact with electric light wire while trimming a tree.
10	Edward L. Frissell,	-	Webster: corner Park and School streets.	Came in contact with 2,000 volt line while stringing wires for the town.
Sept. 20	Arthur S. Enos,	-	Cohasset: Elm Street, . . .	Company employee. Death resulted from injuries received from a fall caused by an electric shock.
27	Frederick W. Swain,	71	Auburndale: corner West Pine and Staniford streets.	Picked up a live wire lying in the street.
Oct. 11	Edward Puddister,	-	Newton: corner Beacon Street and Gray Cliff Road.	While climbing a pole probably touched a live wire.
Nov. 2	Fred Coburn,	26	Somerville: corner Cedar and Aberdeen streets.	Company employee. While trimming a tree received a shock.

Non-fatal Cases.

Date.	NAME.	Age.	City or Town.	Remarks.
1911. Feb. 24	Charles E. Baker, .	-	Falmouth: Electric Light Plant,	While assisting his father, who was engineer of plant received 2,300 volts through body. Hands badly burned.
Mar. 9	William Stevenson, .	30	Gardner: Lynde Street, .	Company employee; received burns by coming in contact with 2,300 volt line.
11	F. Guy Nichols, .	32	Lynn: Neptune Street, .	Company employee; came in contact with live wire.
19	Joseph Cutting, .	-	Leominster: Mechanic Street, .	Received a shock through steel hoisting rope of derrick which came in contact with 2,300 volt wire of electric light company.
20	Sherman Sharples, .	-	Haverhill: 82 Winter Street, .	Company employee; received burns on hands by touching a live wire.
June 9	M. J. Lahey, .	-	Cheshire,	Company employee; while working on pole hurt by fall caused by an electric shock.
July 18	Timothy Keefe, .	-	Lowell: Moore Street, .	Company employee; received severe injuries from a fall caused by an electric shock.
18	Robert A. Keating, .	21	South Boston: Edison Power Station, .	Company employee; was starting a motor, his right hand came in contact with rheostat, completing a circuit; received a shock and burns upon the hands.
18	Mrs. Loretta L. Muller, .	-	Medford: 35 Sheridan Avenue, .	Turned on the electric light when standing on a register and received a shock and burns on her hands and feet.
19	Marvin K. Schenck, .	28	Milton: Randolph Avenue, .	Was soldering joints on a street lighting circuit when he came in contact with live wires receiving a shock and burns.
19	Ernest P. Howe, .	30	Clinton: near Wachusett Dam,	Employee of Metropolitan Water Board; received severe burns by coming in contact with live conductor of Connecticut River Transmission Company, while at work on wires.
22	Mason L. Sanford, .	-	Amherst: Pleasant Street, .	Telephone employee; received serious injuries from a fall caused by an electric shock.

28	W. H. McVerney,	35	Brookline: St. Paul Street,	Company employee; while trimming an arc lamp he received a shock which caused him to fall to the ground.
31	E. B. Conners,	-	Hull: corner Bay Street and Fairmount Way.	Telephone employee; while at work on pole came in contact with live electric light wire, receiving a shock.
Aug. 2	E. C. Green,	24	Cochituate: German Hill Street,	Company employee; received a shock and burns while at work on a pole by coming in contact with live wire.
7	John F. O'Connell,	11	Lexington: Grant Street,	Climbed a pole and took hold of live wire; burned.
8	Philip Marcellette,	-	Newton: Adams Street,	Burned his finger on a live wire when trimming a tree.
15	Fred Cosman,	24	Fitchburg: Electric Light Station,	Company employee; hands burned by coming in contact with an arrestor.
16	Joseph Dunn,	5	Malden: corner West and Adams streets.	Took hold of an iron wire which had been placed over chain supporting arc lamp; received a shock and burns.
22	George Macdonald,	34	Beverly: 23 Wallis Street,	Company employee; while at work on a pole received shock.
30	James Hobbs,	-	Gardner: Electric Light Station,	Company employee; burned upon hand by 2,300 volt motor.
Sept. 2	Edward Bremer,	-	Allston: Edison sub-station,	Company employee; was burned while cleaning framework of lightning arrestor.
Oct. 4	Alton R. Henderson,	-	Lowell: Electric Light Plant,	Company employee; received a shock and burns by coming in contact with 500 volt direct current circuit.
Nov. 22	Frank Cousins,	-	Haverhill: River Street,	Telephone lineman; burned by coming in contact with electric light wire.
Dec. 11	George Whitford,	35	Newton: Edison Electric Light Station,	Leg was burned by coming in contact with circuit.
21	John Thorensen,	-	Haverhill: Electric Light Station,	Company employee; took hold of live bus bar and received a shock.
25	George F. Warren,	44	Worcester: corner Davis and Ely streets.	While working on fire-alarm system received a shock from electric light wire which threw him across the wires, burning him severely.

APPENDIX H.—SPECIAL REPORTS TO THE LEGISLATURE.

IN BOARD OF GAS AND ELECTRIC LIGHT COMMISSIONERS,
BOSTON, JAN. 17, 1910.

*To the Honorable Senate and House of Representatives in General
Court assembled.*

At the legislative session of 1910 the following resolve was adopted:—

CHAPTER 55.

RESOLVE TO PROVIDE FOR AN INVESTIGATION AND REPORT RELATIVE TO
THE TRANSMISSION OF ELECTRICITY FOR LIGHT, HEAT OR POWER.

Resolved, That the board of gas and electric light commissioners is hereby directed to investigate the circumstances affecting the transmission of electricity for light, heat and power upon, along, across and under the public ways, and across any waters within the commonwealth, and upon private land, and especially with respect to the transmission of electricity in bulk, and to such lines as must pass through two or more cities or towns in order to connect a source of supply with a suitable market for the electricity generated; to examine the laws relative to the location, construction, maintenance and use of lines for the transmission of electricity and the authority of the local officials and of said board with respect thereto; and to report to the next general court the result of its investigation and examination, with such recommendations as it may deem advisable. [*Approved April 5, 1910.*]

Pursuant to this resolve the Board has made the investigation directed, and in connection therewith has given six public hearings to all persons interested. Due notice of these hearings was given to the persons who introduced Senate bills Nos. 214, 215 and 216 of 1910, to the mayor or selectmen of all municipalities in which electric light companies are engaged in business, to all electric light and power companies, and to certain business and other associations who have been accustomed to interest themselves in such questions.

As the result of its investigation the Board respectfully submits its report as follows:—

SCOPE OF INQUIRY.

At the hearings given by the Board four subjects were chiefly discussed: (1) the expediency of granting the right of eminent domain for the location of transmission lines; (2) an appeal in the event of a refusal of a location in the public ways by the authorities of a city or town through which a transmission line must of necessity pass; (3) certain changes in and additions to the existing law relative to locating electric lines in public ways; and (4) the proper regulation of high-tension lines which must pass through several cities or towns from the source of supply to the market for the electricity. The first subject involves an extension of the exercise of eminent domain never before granted in this Commonwealth. The second subject was introduced by the electric light companies in lieu of a grant of the right of eminent domain. The third subject concerns a number of questions and doubts which have arisen over the proper interpretation of the provisions of the existing law and from the absence of any provisions covering certain circumstances not contemplated when the present law was enacted. The fourth subject deals with certain phases of electrical transmission which have only developed in the experience of the past few years. Representatives of the New England Telephone and Telegraph Company participated in the hearings on account of the interest of that company, direct or indirect, in the several subjects discussed.

DEVELOPMENT OF ELECTRICAL DISTRIBUTION.

The use of electricity for illumination was introduced about 1880, and the first company to engage in supplying electricity for the purpose in this State was organized in that year. At the outset street lighting was the chief object of the companies organized. With the knowledge of the art then existing, it was not thought practicable to distribute electricity at any considerable distance from the generating station, and the early operations of the companies were confined to relatively small areas, rarely reaching beyond the bounds of the cities or towns in which their generating stations were located, and usually restricted to the thickly settled portions of such cities and towns; but within these limited areas the use of electricity was rapidly extended to residence and other forms of commercial lighting.

The remarkable progress made within the past twenty years in

the knowledge of electrical phenomena, in the improvement of machinery and appliances for the production and distribution of electricity, and in its adaptation to traction and mechanical purposes is well known. Two features bear directly on the subject of this inquiry, namely, the greatly increased efficiency and economy of production and distribution and the greater areas over which it has become practicable to distribute from a generating station. In the earlier years owners of electric light plants were embarrassed by the brief use made of their investment for the production of electricity for lighting. Other uses for electricity to help the station load were sought out and encouraged, and experience taught the companies that a great diversity in the purposes for which electricity is required in the area supplied by any generating station means an increased output for the same investment, and, in consequence, decreased cost per unit. The effect has been a marked decrease in the number of generating stations relative to areas supplied, an increase in the physical and legal consolidation of many of the companies and a rapid development in the use of electricity for power. In 1888, 56 electric light companies, each with its own generating station, were engaged in supplying electricity in 64 cities and towns. Now, about 120 companies, municipal plants and individuals are distributing electricity in over 215 cities and towns, but from less than 100 generating stations. Not only have the areas feasible for local distribution been extended, but by transmission lines reaching from a generating station to outlying transformer stations it has become possible and commercially desirable to supply from one central station many distinct areas for local distribution, each formerly served by its own generating station.

In the development of the electric supply business in this State but little use has hitherto been made of water powers. This is no doubt due to the fact that water powers situated within or easily accessible to areas to be supplied were already appropriated to manufacturing purposes. In other parts of the country, however, the existence of large water powers not available for manufacturing purposes, and the comparatively recent discovery that this power can be electrically transmitted at high tension for long distances with relatively little loss and at reasonable cost, have made accessible to industrial centers sources of power not previously considered. The hydro-electric generating stations at Niagara Falls, furnishing electricity not merely in the vicinity but as far as Syracuse (165 miles away), and on the Pacific coast,

with a transmission circuit in one instance 232 miles long, are notable instances. A similar movement in this State to dispose of the surplus power at Turners Falls and Holyoke on the Connecticut River by electrical transmission found expression in the following special acts:—

Acts of 1903, chapter 350, An Act to authorize the Holyoke Water Power Company to manufacture, sell and distribute electricity for power purposes.

Acts of 1904, chapter 340, An Act to extend the corporate powers of the Turner Falls Company.

Acts of 1909, chapter 152, An Act to extend the authority of the Holyoke Water Power Company to manufacture, sell and distribute electricity for power purposes.

But no attempt to utilize water powers by electrical transmission was made in this State on any extended scale until 1907. In that year the Connecticut River Power Company (now Amherst Power Company) was organized, and built a high-tension transmission line between the Turners Falls Company's power station and Amherst. This has since been extended to Easthampton, and the Amherst Power Company is supplying the Amherst and Easthampton gas companies, although the last named has recently built a new and greatly enlarged steam generating plant. Its transmission line is about 28 miles long, chiefly over a private right of way, and supported in part by poles and in part by steel towers. It is now operated at 23,000 volts, but is constructed for operation at 66,000 volts.

In the same year a dam was begun at Vernon on the Connecticut River, just north of the Massachusetts line, with the avowed object of generating electricity, chiefly to be transmitted to and sold in the industrial centers of Worcester County. In 1908 the Legislature authorized the same interests, as part of this project, to construct another dam across the Connecticut River, south of the State line, at the French King Rapids (Acts of 1908, chapter 580, An Act to incorporate the French King Rapids Power Company). This last dam has not been constructed, but the persons interested organized, under the general law in 1908, the Connecticut River Transmission Company, for the distribution of the electricity generated at the Vernon dam. This company has erected and is now operating at 66,000 volts a transmission line supported by steel towers and built over a private right of way from the New Hampshire line to Gardner, Fitchburg, Clinton, Marlborough and Worcester.

ter, about 55 miles in all. It is selling electricity to the electric light companies in Gardner, Fitchburg and Marlborough, and to a few other large users of power in the several places named.

In the utilization of electricity for the operation of street railways there has been a somewhat similar development. Twenty years ago such railways were purely local in their character. The power stations for the operation of their cars were conveniently located to supply directly their trolley wires, or else by short lines of feed wires stretched along the trolley poles. Now the street railways have been grouped into relatively few large systems. Economy of operation is tending to centralize the power stations, to locate them as favorably as possible with respect to the supply of fuel, and to transmit the electricity necessary to operate the cars longer distances and at higher voltages, and often quite independently of the location of the tracks. One company has a power station at Quincy Point, and transmits the electricity there generated at high tension over a private right of way as far as Fall River.

In 1909, by chapter 359, the Legislature authorized the expenditure of \$5,000 for the determination of the amount of water power available on the streams of the Commonwealth, and for investigating the best methods of utilizing the same, and empowered the Governor to make a contract therefor with the director of the United States Geological Survey. This contract was made, a preliminary report submitted last year and the final report is now due.

EXISTING LAW.

The public ways offer the most practicable and in many instances the only possible means of distributing electricity, not only to street lights but to private consumers. As early as 1849 telegraph companies were authorized to construct their lines in public ways under substantially the same provisions still retained in the general law. In 1883 these provisions, so far as applicable, were extended "to lines for the transmission of electricity for the purpose of lighting." In 1895 all provisions of law relating to the construction and regulation of electric light lines were made to apply to lines for the transmission of electricity for heat or power. In 1908 the Legislature, anticipating the advent of the electric power companies already noted, passed an act (chapter 617) to regulate the entry of such companies into cities or towns already supplied by electric light companies.

The provisions of the general law now in force relating to the

transmission of electricity for light, heat and power fall into four general groups, namely: —

(1) Locations for lines for such transmission, other than lines of electric street railways, in the public ways.¹

(2) Locations for the poles and wires of street railways and electric railroads in public ways.²

(3) Restrictions upon the entry of a second company into cities or towns in which a company, person or corporation is already engaged in the manufacture and sale of electric light.³

(4) Regulations concerning the erection and maintenance of electric lines and the protection of the public therefrom.⁴

These various provisions are in substance as follows, viz.: —

(1) Section 1 of chapter 122 of the Revised Laws reads: —

A company which is incorporated . . . for the transmission of electricity for lighting, heating or power, except lines for heat or power by a street railway company, may, under the provisions of the following sections, construct lines for such transmission upon and along the public ways and across any waters within the commonwealth, by the erection of the poles, piers, abutments and other fixtures, except bridges, which may be necessary to sustain the wires of its lines; but shall not incommode the public use of public ways nor endanger or interrupt navigation.

Section 25 of the same chapter provides that —

owners and associations engaged in the business specified in section one of this chapter, although not incorporated, shall be subject to the provisions of this chapter, as far as they are applicable.

Section 2 of the same chapter provides that —

the mayor and aldermen of a city or the selectmen of a town through which the lines of a company are to pass shall give the company a writing specifying where the poles may be located, the kind of poles and the height at which, and the places where, the wires may run.

The section further provides that, after the erection of the lines and after giving the company an opportunity to be heard, the same officials "may direct any alteration in the location or erection of

¹ Revised Laws, c. 25, §§ 52, 53; c. 34, § 31; c. 47, § 21; c. 48, § 85; c. 121, §§ 17, 18, 23; c. 122, §§ 1, 2, 3, 4, 5, 25; Acts of 1903, c. 237; Acts of 1906, c. 117.

² Acts of 1906, c. 463, Part III., §§ 1, 7; Acts of 1906, c. 516, § 8.

³ Revised Laws, c. 121, §§ 26, 27; Acts of 1906, c. 617.

⁴ Revised Laws, c. 25, §§ 54, 55; c. 26, § 6; c. 121, §§ 19, 21, 23; c. 122, § 16 to § 23 (both inclusive), and § 26 to § 30 (both inclusive).

the poles, piers or abutments and in the height of the wires." By amendments enacted in 1903 (chapter 237) and 1906 (chapter 117) these provisions have been amplified, requiring a petition in writing for an original location, and a public hearing thereon after written notice "to the owners of real estate along the way or parts of ways upon which it is proposed to construct said line." It is provided that the clerk of the city or the selectmen "shall endorse upon the order or specification of locations granted, his or their certificate that notices were sent and a hearing held as herein provided, and no such order or specification shall be valid without such certificate," and such certificates, as well as the specifications and decisions, "shall be recorded in the records of the city or town." It is also provided that an alteration of location may be granted without hearing or notice, "and no permit shall be required for renewing, repairing or replacing poles, piers, abutments or other fixtures once erected under the provisions of law."

Sections 3, 4 and 5 of the same chapter permit an owner of land abutting on a public way along which an electric light, heating or power line is constructed, whose property is injured thereby, to have his damages assessed.

In section 52 of chapter 25 of the Revised Laws it is provided that—

the selectmen may, upon terms and conditions prescribed by them, and subject to the provisions of chapter one hundred and twenty-two, so far as applicable, authorize a person to construct lines for private use upon, along and under the public ways of the town for the transmission, by electricity, of light, or of heat or power, except such as is used by street railway companies or for the transmission, by electricity or otherwise, of intelligence by telegraph or telephone.

The mayor and aldermen of a city have a similar power (see Revised Laws, chapter 26, section 2); but upon construction of such a line the poles and structures thereof within the limits of the public ways become the property of the town or city, as the case may be.

In section 17 of chapter 121 of the Revised Laws it is provided that a gas company, authorized under section 14 of that chapter to engage in the electric business, —

shall not erect or maintain any poles for the support of wires, nor erect or maintain any wires in, through or over any streets or highways, nor dig up any streets or highways for the purpose of laying

said wires underground, until it has, upon petition in writing, obtained the consent in writing of the mayor and aldermen of cities or the selectmen of towns in which said streets are located.

This section is made applicable to electric light and power companies by section 23 of the same chapter.

Under section 21 of chapter 47 of the Revised Laws —

No state highway shall be dug up for laying or placing . . . poles, wires or railways or for other purposes, . . . without the written permit of the highway commission, and then only in accordance with the regulations of said commission.

Provision is made in section 85 of chapter 48 of the Revised Laws whereby cities or towns accepting the same may, in laying out a public way, reserve spaces for electric wires. There is no restriction save by inference, however, whereby electric wires in a way so laid out must be confined to such reserved space.

There is no express provision of the general law whereby a location for electric lines once granted may be revoked, save that section 31 of chapter 34 of the Revised Laws is as follows, viz. : —

No city or town having within its limits the main gas works or the central lighting station, or the major portion of the wires, poles, conduits or pipes used in connection with any such works or plants, shall, except for a violation of the terms or conditions upon which the same were granted or for a violation of law respecting the exercise thereof, revoke any rights granted to any person or corporation engaged in the business of manufacturing or distributing gas or electricity for lighting purposes, after the introduction of the first vote authorizing the establishment of a municipal lighting plant in a city council under the provisions of section two or after the calling of a town meeting under a warrant including an article on the passage of such vote, until the proceedings so begun have been finally determined by granting or denying authority to establish such plant. After the passage and ratification of both votes required by sections two or three, no city or town, except as hereinbefore provided, shall revoke any rights, locations or licenses granted to any such person or corporation.

Locations for underground conduits for electric lines in public ways are not provided for unless such provisions can be implied from sections 17 and 23 of chapter 121 of the Revised Laws, already mentioned. In the cities or towns in which there is any substantial amount of underground construction there are special laws relating thereto.

Boston: Acts of 1894, chapter 454; Acts of 1898, chapter 249; Acts of 1908, chapter 347.

Springfield: Acts of 1900, chapter 276; Acts of 1901, chapter 181; Acts of 1900, chapter 72.

Worcester: Acts of 1902, chapter 372.

Somerville: Acts of 1905, chapter 278.

Pittsfield: Acts of 1906, chapter 131; Acts of 1910, chapter 318.

Haverhill: Acts of 1906, chapter 391.

Brockton: Acts of 1907, chapter 325.

Salem: Acts of 1910, chapter 448.

There is also no provision relative to joint locations for poles or to the attachment of wires of one company to the poles of another company.

The court has held that section 1 of chapter 122 applies to domestic and not to foreign corporations, and that a city or town may be indicted for suffering a public way to be obstructed by a pole erected by a foreign corporation.¹ But an electric line constructed in exact conformity with a location duly granted therefor does not constitute a defect or want of repair for which the city is liable.² The words "upon and along the public ways" in section 1 include crossing a public way with wires,³ and the word "shall" in section 2 has been construed as equivalent to "may," at least with respect to electric light wires.⁴ While there is an absence of any express provision in the general law for locations for underground conduits, yet if such are now permitted, they apparently can be granted only upon a petition in writing, notice to abutting landowners, a public hearing and a record of the location granted, as required in section 2 (as amended) of chapter 122 of the Revised Laws.⁵ Provision is made, as already noted, for damages to abutting landowners upon a public way along which an electric line is constructed, but such line does not constitute an additional servitude⁶ even though the city or town through which it passes or the owner of the fee in the way is not supplied or in any way benefited by it.⁷

There is no express provision of law relating to street structures of municipal lighting plants, but in section 30 of chapter 34 of the Revised Laws it is provided that —

¹ Commonwealth v. Boston, 97 Mass. 555.

² Young v. Yarmouth, 9 Gray, 386.

³ Banks v. Highland St. Ry. Co., 136 Mass. 485.

⁴ Suburban Light & Power Co. v. Aldermen of Boston, 153 Mass. 230.

⁵ Metropolitan Home Telephone Co. v. Emerson, 202 Mass. 402.

⁶ N. E. Tel. & Tel. Co. v. Boston Terminal Co., 182 Mass. 397.

⁷ Cheney v. Barker, 198 Mass. 356.

All general laws, and all ordinances or by-laws of any city or town acting under the provisions of this chapter, relative to the manufacture, use or distribution of gas or electricity, or to the quality thereof, or to the plant or the appliances therefor, shall apply to such city or town, in the same manner as to persons, so far as applicable and consistent with the provisions of this chapter.

(2) In Acts of 1906, chapter 463, Part III, section 1, it is provided:—

“Street railway” or “railway” means a railroad or railway, including poles, wires or other appliances and equipment connected therewith, of the class operated by motive power other than steam, and usually constructed upon the public ways and places.

and

“Location”, as applied to a street railway, means the grant to a street railway company of the right to construct, maintain and operate a street railway in a public way or place.

By section 7, upon petition for a “location,” the board of aldermen of a city or selectmen of a town—

may grant said location, or any portion thereof, and may prescribe how the tracks shall be laid, and the kind of rails, poles, wires and other appliances which shall be used.

The same language is used in section 8 of chapter 516 of the Acts of 1906, relative to locations of electric railroads longitudinally upon public ways. There are further provisions for connecting locations, and for the extension, alteration and revocation of existing locations of street railways. There is, however, no other express authority for the location in public ways of the feed wires of a street railway or electric railroad, and poles to support them, especially in ways in which the railway itself is not constructed.

(3) By the provisions of sections 26 and 27 of chapter 121 of the Revised Laws,—

in a city or town in which a company, corporation or person is engaged in the manufacture or sale of electric light no other person, firm or corporation shall lay, erect, maintain or use, over or under the streets, lanes and highways of such city or town, any wires for the transmission of electricity for light, heat or power, except wires used for heat or power by street railway companies, without the consent

of the mayor and aldermen of such city or selectmen of such town granted after notice to all parties interested and a public hearing.

An appeal from the decision of the mayor and aldermen or selectmen may be taken to this Board within thirty days thereafter by any corporation, company or person aggrieved, and the Board's decision thereon is final.

By the Acts of 1908, chapter 617, if the company applying under section 26, quoted above, is —

incorporated or authorized to distribute and sell electricity exclusively for power,

the mayor and aldermen or selectmen, in giving to such company their consent, —

may, in addition to the provisions of law governing such companies, impose such other terms, limitations and restrictions as the public interest may, in their judgment, require, and upon an appeal therefrom, pursuant to section twenty-seven of said chapter, the board of gas and electric light commissioners may, in addition to its present authority under said section, affirm, amend, alter or add to the terms, limitations and restrictions so imposed as the public interest may in its judgment require.

The consent of the local authorities required by these sections is independent of and in addition to the requirements of section 2 of chapter 122 of the Revised Laws, relative to locations for poles and wires. In passing upon sections 26 and 27 of chapter 121 of the Revised Laws the court has said that these provisions are of themselves sufficient to show that the Legislature did not intend to leave the business of manufacturing and selling electric light to be carried on in the same municipality by as many companies and persons as may be minded to put wires in the streets and try their luck.¹ By means of them the local authorities in the first instance and this Board on appeal may exclude or admit competition, and in the sale of electricity for power only may permit a limited competition if deemed expedient.

(4) By section 54 of chapter 25 of the Revised Laws selectmen —

may establish reasonable regulations for the erection and maintenance of all lines . . . for the transmission by electricity of light, or of heat

¹ Attorney-General v. Walworth, 157 Mass. 86.

or power except such as is used by street railway companies, by every person having authority to place poles, wires, structures and other appliances for any purpose in or under public ways or places, including all lines owned or used by said towns.

In a city such regulations are established by ordinance (Revised Laws, chapter 26, section 6). Under section 55 of chapter 25 it is provided that in case lines are constructed or maintained in violation of such regulations, after written notice from the cities or towns, the courts may enjoin the further progress of the work or order the removal or alteration of the line at the expense of the owners, constructors or users. If a line is owned or used by a city or town, like action may be taken upon complaint of a person injured.

In section 19 of chapter 121 of the Revised Laws —

the mayor and aldermen of cities and the selectmen of towns, respectively, may regulate, restrict and control all acts of said company which may in any manner affect the health, safety, convenience or property of the inhabitants of their respective cities or towns.

This section, while primarily applying to gas companies authorized to do an electric business, is also made to apply to electric light and power companies by section 23 of the same chapter.

In sections 16 to 23 and 26 to 30, both inclusive, of chapter 122 of the Revised Laws, there are various specific regulations with respect to lines of wires over or under streets or buildings. These concern the strength, support, insulation and tagging of wires, the removal of abandoned wires, the attachment to wires entering buildings, other than wires designed to carry an electric light, heat or power current, of appliances sufficient to arrest a current of such intensity or volume as to be capable of injuring electrical instruments or of causing fire, and the insulation and marking of poles, cross arms and fixtures. An inspector of wires must be appointed in cities, and may be appointed in towns, with the duty of supervising the wires and of seeing that all laws and regulations relating to wires are strictly enforced. There are also provisions for the protection of private property against the encroachment of companies or persons maintaining wires, for punishing unlawful and intentional injuries to wires and the poles supporting them, and for the cutting, disconnecting or removing wires in order to move a building or for any other necessary purpose.

LOCAL DISTRIBUTION.

The laws authorizing the construction of electric lines in public ways, which were first enacted in the infancy of the art of telegraphy, long before telephones and electric lights were thought of, have adapted themselves so well to the phenomenal development of telephonic communication and the use of electricity for light and power that they are today open to little serious criticism save in matters of detail. Some questions have arisen as to the proper interpretation of the existing law, and the general law contains no definite provision for locations for underground conduits. The electric light companies have, according to their returns, at least 40 per cent. of their total plant investment in their distribution lines in the public ways, and over half of this distribution is now in underground construction. It is proper and just that the respective rights of the public and of the companies in regard to so important a matter should be clearly known and defined.

Section 1 of chapter 122 of the Revised Laws is the general authority for the construction of lines "upon and along" public ways. To add to its definiteness it is believed that it should be made to apply expressly to lines "under and across" public ways, and also not merely to the poles and other fixtures supporting wires transmitting electricity, but to such other poles, etc., as may be necessary to protect them. A street railway company's lines for heat or power are expressly excepted, as already noted. This exception was first introduced in Acts of 1895, chapter 350, making all provisions of law relating to telegraph, telephone and electric light lines applicable to lines for the transmission of electricity for heat or power. Unless such street railway lines may be construed as fairly included in the definition of a "street railway," already quoted, and in any event if constructed in ways other than those in which the company's tracks are laid, there seems to be no power granted by general law to authorize their construction. The Board believes that this cannot have been the intention of the Legislature, and that to cure this doubt the words "except lines for heat or power by a street railway company" should be stricken out, and the general authority granted by the section extended to street railway and electric railroad companies. In order, however, that there may be no interference with the location of street railways and electric railroads under the acts applicable thereto, there should be in section 2 an express reservation that the

procedure specified therein shall not apply to the poles, wires, etc., of such companies included in the grant of locations under the street railway and electric railroad acts.

Section 2 of the same chapter, in its present amended form, seems to confound the written authorization for the line with the procedure by which such authorization is granted. It appeared at the hearings that a considerable divergence of opinion existed as to what is the original record of the grant of a location, and as to the duties of the public officials having to do with such grant. It seems clear to the Board that the mayor and aldermen or selectmen must act in considering the grant of a location by vote, and that the original record of that vote, if the location is granted, should be found in the public records of the city or town rather than in a writing delivered to the company to which the grant is made. The Board has felt hesitation in recommending the abandonment of language which has been in use for over sixty years, but after some unsatisfactory attempts to retain the language in question, it has reached the conclusion that the section should be rewritten, with a view not to a change of substance but to a clear and logical statement of the respective duties of the company and of the local authorities with respect to a location asked for.

In redrafting the section the Board also believes that several features not now expressly provided for should be covered. It should apply to underground conduits and to wires crossing public ways but not supported by poles or other structures erected therein. The writing prescribed in the present law specified "the kind of poles and the height at which, and the places where the wires may run." The preceding section expressly contemplates that wires may be supported by structures other than poles, and there seems no reason why the mayor and aldermen or selectmen should not be clearly authorized to specify the kind of street structures to be used, even if poles are not proposed, and if the height at which the wires may run is important enough for express mention, the number of wires or cables seems equally important. It may perhaps be fairly urged that house connections and connections between conduits and distributing poles are incident to the original location of the line, but, on the other hand, there seems no sound reason for not making this absolutely clear.

In the desire to reduce to a minimum the unsightliness of overhead street structures of wire-using companies there has been a constant pressure upon the companies to combine their lines on one set of poles wherever practicable. At the hearings it was

urged in behalf of one of the towns that express authority to compel this to be done should be given the mayor and aldermen or selectmen. There is, however, a serious legal difficulty in an attempt to compel a company involuntarily to permit the use of its property by another. There is also an even more important consideration that the combination of high and low tension wires on the same poles, however well the lines may be constructed, tends to increase the danger to life and property. One common cause of the electric accidents reported to the Board is that telephone and fire alarm linemen come into contact with highly charged electric wires. Some distressing accidents have also been reported to persons in houses, unconscious of danger, by the contact of telephone wires with electric light wires in the street. It may not be practicable or wholly desirable to attempt to eliminate this danger by not permitting such a combination of high and low tension wires on the same poles. It is the opinion of the Board, however, that the matter may better be left to be worked out between the local authorities and the companies themselves, as at present, but that express provision should be given for authorizing attachments and joint locations.

Something was said at the hearings relative to requiring joint occupation of conduits, and also to the compulsory use of publicly owned conduits. The legal difficulties already noted apply to the first proposition. With the exception of one city, there is no general demand by the municipalities interested, so far as the Board is aware, for authority to construct such conduits at the public expense. It may be conceded that the varied ownership and crowded state of underground structures in the streets of our large cities, and the manifest tendency to simplicity and ultimate economy of capital in case suitable conduits are built and cared for by a single owner, makes the question of importance. Yet, in the absence of any general demand for such legislation, the Board has not believed it necessary at this time to enter into a serious consideration of the expediency of such an undertaking by cities and towns.

The Board was urged to recommend that the mayor and aldermen or selectmen be given express authority to impose terms, conditions, restrictions and obligations upon grants of location. It is a common practice to do this, although the law is silent, and the mayor and aldermen or selectmen exercise but a delegated authority with respect to it. Perhaps as common a feature as any is the requirement that the companies shall reserve a certain portion of their poles or of the ducts of their conduits for the fire and police alarm

or even electric light wires of the city or town. The question of the right to impose such terms without compensation, and, for that matter, to impose any terms whatever, is now pending before the full bench of the Supreme Court, and the Board believes that it is wise to await the court's decision before making any specific recommendation with respect to this matter.

In the course of its investigation the Board was satisfied that there have been so serious and wide differences of opinion and of practice with respect to the granting of locations for electric lines as to throw grave doubts on the validity of many locations granted, accepted and used in good faith on both sides. This is not a desirable situation if it can be cured with justice to the interests both of the public and of the companies. A similar situation with respect to the location of street railways was cured by an enabling act in 1898. The Board believes that a similar act should be passed with respect to electric lines in public ways, but that any company desiring to avail itself of the benefit of such an act should furnish a complete and accurate public record of all locations affected by it. The Board is also satisfied that provision may and should be made for future undergrounding of wires by a general act rather than by special law for each city or town interested.

Section 17 of the same chapter provides for the tagging or marking of wires. A distinction is made as between cities and towns, the reason for which is not apparent, and in cities every wire is required to be tagged, although no other wires belonging to different owners are attached to the same pole, cross arm or fixture. It is important that the ownership of poles, wires and other structures connected with electric lines shall be plainly designated and readily ascertainable; but it does not seem necessary that the tags or marks shall be attached to individual wires or cables, unless the wires or cables of different owners are grouped on the same pole or other fixture. With these considerations in view, the Board recommends a redrafting of this section and a slight amendment of section 23, permitting the marking of poles by initials, and not requiring the marking by the names of the owners, as at present. In view of the fact that the practice of supporting lines operated at high voltages by steel towers and similar structures is increasing, it also recommends that section 20, relative to the insulation of poles, be amended by giving public warning of the danger of contact with such structures.

It was urged at the hearings that the wires of street railways should be exempted from the operation of section 28 of the same

chapter, relative to cutting wires in order to move buildings through the public streets. The Board, however, believes that this exemption should not be granted. On the other hand, this section, as it now reads, authorizes the person desiring to move the building to cut, disconnect or remove wires after a certain notice to the companies interested. The actual exercise of such authority might be accompanied by great danger to life and property and to the serious inconvenience of the public. The Board therefore recommends a redraft of this section, giving the public authorities the right to cut, disconnect or remove wires in case of the neglect or refusal of the company to act after proper notice.

HIGH-TENSION TRANSMISSION.

In an earlier part of this report the Board has endeavored to describe briefly the present tendencies with respect to the distribution of electricity by electric light companies. An essential feature of the centralizing of generating stations and the widening of the areas supplied therefrom is the ability to transmit electricity economically to outlying substations which become centers of local areas of supply. This has been accomplished by the introduction of trunk lines operated at voltages far higher than for the ordinary distribution of electricity, whether for use as light or power. Such trunk lines have been constructed for the most part over or under public ways, and under such regulations as are contained in the general law or have been imposed by the authorities of the cities or towns in which they are located.

Some concern has been expressed as to the expediency of permitting such high voltages in the public streets. It should be borne in mind that the voltage at which the ordinary distribution lines have for a considerable period been operated is easily fatal to persons coming in contact with them. The increase in voltage increases danger to life, not in being proportionately more fatal, but in being more difficult to control. It is fair to add that, from reports of accidents caused by electricity made to this Board, there is no apparent increase in such accidents due to the increasingly common use of the higher voltages. Without undertaking to insist upon an exact limit, the Board is of the opinion that overhead lines operated at very high voltages should, so far as practicable, be kept off the streets.

As already noted, the Legislature up to the present time, with the exception of such general provisions with respect to the sup-

port, insulation, etc., of wires as are contained in chapter 122, has left to the local authorities the duty of imposing such reasonable regulations upon electric lines as they may deem necessary. No sufficient reason was urged before the Board for disturbing this local control where one community only is concerned. As already described, at the present time the areas supplied by the different generating stations have little relation to municipal lines, and in many instances communities are dependent for their supply on transmission lines which do in fact, and must of necessity, pass through other cities or towns. Any considerable variance in the regulations affecting such interurban lines, even though apparently reasonable in itself, is likely to prove a serious embarrassment to their economical and efficient operation. For this reason, and with a view to assist in harmonizing local action in such cases, the Board recommends that, following the analogy of requiring town by-laws to be approved by the Attorney-General, regulations adopted by local authorities affecting interurban electric lines shall be approved by the Board before taking effect.

A similar opportunity for conflict between the interests of different communities may arise with respect to high-tension transmission lines which must of necessity pass across or through one or more cities or towns to reach their destination. Such lines, even if built on private rights of way, cannot extend far without crossing public ways, for which locations from the local authorities are necessary. If such a line is plainly in the interest of the public in several communities, its construction should not be defeated or seriously hampered at the will of a single city or town. The Legislature has already met a similar situation respecting street railways by authorizing the Railroad Commission to grant a connecting location in the event of a refusal or failure of local authorities to grant the same. Existing conditions seem to make it desirable that similar authority with respect to electric lines be given to this Board.

EMINENT DOMAIN.

One of the bills pending in the Senate in the session of 1910 which gave rise to this resolve sought the power of eminent domain for private rights of way for transmission lines. It was supported before the legislative committee by the interests owning the Connecticut River Transmission Company and the Amherst Power Company. The same interests, at the hearings under this resolve, urged the Board to recommend legislation of this char-

acter. The electric light and street railway companies also seemed to favor such legislation at the outset, but before the hearings closed the electric light companies withdrew their support and the Connecticut River Transmission Company appeared indifferent with regard to the matter. The Board was of the opinion, however, that the merits of this important question are not to be determined merely because certain special interests may be disposed to be satisfied with present conditions, and that the public, for whose use alone this right can be invoked, may take a different view.

It is plain that the two principal high-tension transmission lines in this State, already mentioned, have been constructed without the exercise of eminent domain in obtaining their rights of way. It did not appear that any considerable deviation in route or excess cost had been occasioned because of lack of this power. It is fair to say that some of the most important hydro-electric developments in the country, with extensive transmission lines built over private rights of way, have been made in States in which the right to the exercise of eminent domain has not been given. Even where the right has been granted, for example, in the Niagara Falls development, both in New York and Ontario, the Board is informed that it has rarely been used in obtaining rights of way. It may therefore be urged that the grant of this right should wait until the necessity for its exercise is demonstrated by experience, and not given so long as the desired results can be otherwise attained.

On the other hand, there is good reason to believe that what has already taken place in this State is but the forerunner of far more important developments. It is known that there are many water powers heretofore unused because inaccessible, and their capacity and location will probably receive more public attention when the final report of the director of the United States Geological Survey is available. There are also water powers of greater capacity in neighboring States of New England not yet utilized, and it was stated at the hearings that within feasible transmission distance of Massachusetts cities and towns there is at least 300,000 undeveloped hydro-electric horse power. To utilize this energy now going to waste, and to make it serve the convenience and necessities of the people and increase the productive capacity of the State, is, in the opinion of the Board, a problem of the greatest public importance, to the solution of which the Commonwealth may well lend the aid of its sovereign power, if this can be done with due regard to individual and community rights.

Private property cannot be lawfully taken save for a public use,

and a use is not necessarily public simply because the Legislature declares it to be so. The Amherst Power and Connecticut River Transmission companies, whose lines have been described, were organized for the transmission of electricity for sale as power merely. This was apparently due to a desire to avoid being deemed and dealt with as public-service corporations, with the duty of serving all within reasonable reach of their lines at reasonable rates and without discrimination. If transmission lines are to be built for the sole purpose of delivering electrical energy for the production of mechanical power directly available only to the few who may be engaged in some manufacturing or mechanical pursuit, it is at least doubtful whether in law this is a public use. Even if sound in law, the Board believes that to base upon this the exercise of eminent domain would neither be expedient nor justifiable.

On the other hand, if a transmission line is to be built to serve the public convenience by furnishing electricity to electric light companies or municipal plants for general distribution, or for distribution by the company owning and operating the transmission line, under the same obligations as now exist with respect to electric light companies, this is plainly a public use in aid of which the right of eminent domain may lawfully be granted, and the question then becomes solely one of expediency.

Hostility to condemning land for any purpose is instinctive, but private rights must often yield where a definite public interest cannot otherwise be adequately served. The Board has already placed on record its belief in the importance to the State of encouraging the introduction of cheap power. The investigation under this resolve has strengthened its conviction that a substantial public convenience may be served by long-distance high-tension transmission lines, and that more of them are likely to be built in the near future. It is also convinced that such transmission lines must be operated at such high voltages and supported by structures of such character as to make inexpedient their erection along public ways. In its study of the problem the Board has been impressed with the great practical difficulty of framing a bill which shall at the same time be constitutional and workable. Any authority to condemn private rights of way must be granted under adequate safeguards for the protection of the rights of the communities and individuals over whose territory such lines must pass, and the public character of the undertaking should be clearly established as a condition precedent to any exercise of the right. The time may not be distant when the proper development of electrical distribution

will require the exercise of eminent domain, but after careful consideration the Board is not satisfied that the need is so urgent as to justify it in proposing a bill for that purpose at the present time. It therefore recommends that such legislation be postponed until experience more clearly demonstrates the need to exercise the right and discloses the character and extent of the public interest involved.

CONCLUSION.

The Board's recommendations for legislative action are embodied in the accompanying three drafts of bills, marked appendices A, B and C, respectively, and may be briefly summarized as follows, viz.:—

1. To amend section 1 of chapter 122 of the Revised Laws, with a view to making it apply, beyond question, to electric lines across and under public ways, and also to the lines of street railways and electric railroads. (See Appendix A, section 1.)

2. To amend section 2 of the same chapter, with a view to a clear, orderly and easily followed procedure with respect to the location of electric lines in public ways, and to increasing its scope to cover present practice and conditions. (See Appendix A, section 2.)

3. To amend sections 17 and 23 of the same chapter, relative to marking poles, wires, etc., with a view to making their operation more comprehensive and at the same time not unreasonably burdensome to the companies. (See Appendix A, sections 3 and 5.)

4. To amend section 20 of the same chapter, relative to the insulation of poles, by requiring poles or structures other than wood supporting lines operated at voltages in excess of 2,000 volts to be marked as "dangerous." (See Appendix A, section 4.)

5. To provide that regulations affecting the operation of inter-urban electric lines shall be approved by the Board before taking effect. (See Appendix A, section 6.)

6. To provide that the Board may grant a location for a line for the transmission of electrical energy, which must pass through one or more cities or towns to connect its proposed termini, in case of the refusal or neglect of the mayor and aldermen or selectmen of a city or town through which said line is to pass to grant a location therefor. (See Appendix A, section 7.)

7. To provide for the confirmation of locations for electric lines in public ways which have been expressly granted by the proper authorities and are in actual use by the grantees thereof. (See Appendix B.)

8. To provide for the establishment of underground districts and for requiring the placing of all wires in the public ways of such districts underground. (See Appendix C.)

FORREST E. BARKER,
MORRIS SCHAFF,
ALONZO R. WEED,
Gas and Electric Light Commissioners.

APPENDIX A.

AN ACT RELATIVE TO THE TRANSMISSION OF ELECTRICITY.

SECTION 1. Section one of chapter one hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows:— *Section 1.* A company which is incorporated for the transmission of intelligence by electricity, or by telephone whether by electricity or otherwise, or for the transmission of electricity for lighting, heating or power, or for the construction and operation of a street railway or electric railroad, may, under the provisions of the following sections, construct lines for such transmission upon, along, under and across the public ways and across and under any waters within the commonwealth, by the erection or construction of the poles, piers, abutments, conduits and other fixtures, except bridges, which may be necessary to sustain and protect the wires of its lines; but shall not incommode the public use of public ways, nor endanger or interrupt navigation.

SECTION 2. Section two of chapter one hundred and twenty-two of the Revised Laws, as amended by chapter two hundred and thirty-seven of the Acts of the year nineteen hundred and three and chapter one hundred and seventeen of the acts of the year nineteen hundred and six, is hereby amended so as to read as follows:— *Section 2.* A company desiring to construct a line for such transmission upon, along, under or across a public way shall in writing petition the mayor and aldermen of the city or the selectmen of the town in which it is proposed to construct in or across said way the wires, poles, piers, abutments, conduits and other fixtures necessary therefor. A public hearing shall be held on such petition, and written notice of the time and place at which such hearing will be held shall be mailed at least three days prior thereto by the clerk of such city or the selectmen of such town to all owners of real estate abutting upon that portion of the way upon, along, across or under which such line is to be constructed, as determined by the last preceding assessment for taxation. After the public hearing aforesaid, the mayor and aldermen or the selectmen may by order grant to the petitioner a location for such line, and shall specify therein where the poles, piers, abutments, conduits

and other fixtures may be placed and the kind of poles, piers, abutments, conduits or other fixtures which may be used, the number of cables which may be attached thereto and the height at which the wires or cables attached thereto may run.

After the erection or construction of such line the mayor and aldermen or selectmen may, after giving the company or its agents an opportunity to be heard, or upon petition of the company without notice or hearing by order direct any alteration in the location of the poles, piers, abutments or conduits, and in the number and height of the wires or cables; but no such order shall be required for renewing, repairing or replacing wires, cables, poles, piers, abutments, conduits or other fixtures once erected or constructed under the provisions of law, or for making house connections or connections between duly located conduits and distributing poles. The mayor and aldermen or selectmen may, upon petition in writing by two or more companies subject to the provisions of this chapter, without notice or hearing, by order authorize any such company to attach its wires and fixtures to existing poles, piers or abutments of either or any of the other petitioners, or to maintain its wires or cables in the conduits of either or any of said other petitioners. The mayor and aldermen or selectmen may, upon petition in writing by two or more companies subject to the provisions of this chapter, and after notice to abutting landowners and a hearing as hereinbefore provided, by order grant to said companies joint or identical locations for the erection or construction of poles, piers, abutments, conduits or other fixtures to be owned and used in common by them.

The order granting a location, an alteration thereof or an attachment such as are hereinbefore described, shall be recorded by the clerk of the city or of the town in books kept exclusively for the purpose, and the clerk of the city or the chairman of the selectmen shall certify on said record that the order was adopted after due notice and a public hearing as hereinbefore prescribed, and no such order shall be valid without such certificate. The company or companies in whose favor the grant of location is made shall pay for such record the same fees as are allowed for the entering and recording of deeds by registers of deeds, and shall be entitled to attested copies of said orders and certificates upon payment of the same fees as are allowed registers of deeds for copies. But nothing contained in this section, save the provision with respect to the attachment of wires to existing poles, piers and abutments, shall be held to apply to the poles, wires and other appliances and equipment which a street railway or electric railroad by a grant of location under the provisions of chapters four hundred and sixty-three and five hundred and sixteen of the acts of the year nineteen hundred and ten, and all acts in amendment thereof and in addition thereto, is authorized to construct, maintain and operate in a public way.

SECTION 3. Section seventeen of chapter one hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows:—

Section 17. Such person or corporation shall plainly mark each pole, pier, abutment or other fixture supporting wires or cables containing wires over streets or buildings with the name or initials of the owner or user of such pole, pier, abutment or other fixture. Wherever cross arms or other appliances for the support of wires or cables belonging to different owners are attached to the same pole, pier, abutment or other fixture, each such cross arm or other appliance shall be plainly tagged or marked with the name or initials of the owner thereof. Wherever wires or cables belonging to different owners are attached to the same cross arm or other appliances for the support of wires or cables, each wire or cable shall be tagged or marked with the name or initials of the owner at or near its point of attachment to such cross arm or other appliance. No such tag or mark shall be required for the wires, poles, piers, abutments and other fixtures of a street railway company, except for its feed wires supported by poles carrying wires or cables belonging to another owner, and for its poles supporting wires or cables belonging to another owner, and for poles belonging jointly to the street railway company and another owner.

SECTION 4. Section twenty of chapter one hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows:—

Section 20. Poles and other structures which are used to support lines for the transmission of electricity shall be insulated in such manner as to protect employees and other persons from accidents. If such poles and other structures are of any materials except wood and support lines are operated at a voltage in excess of two thousand volts, they shall be plainly and conspicuously marked, "Danger. High-tension Electric Line." The officer and inspector of wires appointed under the authority of section eighteen or the commissioner of wires of the city of Boston shall enforce the provisions of this section, and he shall be the sole judge of what constitutes a proper insulation and marking.

SECTION 5. Section twenty-three of chapter one hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows:—

Section 23. A corporation or person maintaining or operating telephone, telegraph or other electric wires shall, at all places where such wires are affixed by any pole, structure or fixture to the property of another, mark such pole, structure or fixture in a clear, durable and legible manner with the name or initials of the corporation or person maintaining or operating such wires, and any corporation or person who fails to comply with the provisions of this section shall be punished by a fine of not more than one hundred dollars.

SECTION 6. Section twenty-eight of chapter one hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows:

— *Section 28.* Whenever, in order to move a building or for any necessary purpose, a person desires that the wires of any such company be cut, disconnected or removed, the company shall forthwith cut, disconnect or remove the same, if the person desiring the same to be done has first left a written statement, signed by him, of the time when, and the place, described by reference to the crossings of streets or highways, where he wishes to remove said wires, at the office of the company in the town in which such place is situated, twenty-four hours before the time so stated, or, if there is no such office, if he has deposited such statement in the post office, properly prepaid, and directed to the company at its office nearest to said place, three days before the time mentioned in said statement. If the company neglects or refuses to cut, disconnect or remove wires as hereinbefore provided, the inspector of wires, or the selectmen of a town where there is no inspector of wires, may cause the same to be cut, disconnected or removed, and the city or town may recover of the company in an action of contract the expenses of so doing.

SECTION 7. No ordinance, regulation or by-law of a city or town, or regulation imposed in a grant of location affecting the erection, maintenance or operation of a line for the transmission of electricity for light, heat or power extending or intended to extend from some point in one city or town through, or to some point in, another city or town, shall take effect until the same shall have been approved by the board of gas and electric light commissioners.

SECTION 8. A company, subject to the provisions of chapter one hundred and twenty-two of the Revised Laws, desiring to construct a line for the transmission of electricity which will of necessity pass through one or more cities or towns to connect the proposed termini of such line, whose petition for the location necessary for such line has been refused or has not been granted within three months of the filing thereof by the mayor and aldermen of a city or the selectmen of a town through which said company intends to construct such line for the purpose aforesaid, may apply to the board of gas and electric light commissioners for such location. The board shall give a public hearing upon said application after notice to the mayor and aldermen of the city or the selectmen of the town refusing or neglecting to grant such location, and to all persons owning real estate abutting upon any way in said city or town in which such location is asked for, as determined by the last assessment for taxation. If it shall appear at said hearing that the company has already been granted and has accepted a location for such line in two cities, or two towns, or a city and town, adjoining the city or town because of the refusal or neglect of whose mayor and aldermen or selectmen to grant a location therefor the application is made, and if in the judgment of the board the location is necessary for the public convenience and will be

in the public interest, the board may by order grant a location for such line in the city or town with respect to which the application is made, and shall have and exercise relative thereto the same powers and authority conferred by section two of this act upon the mayor and aldermen or selectmen. The board shall cause an attested copy of its order with the certificate of its clerk endorsed thereon that the order was adopted after due notice and a public hearing as hereinbefore prescribed, to be forwarded to the clerk of the city or of the town, as the case may be, and the clerk of the city or of the town shall record the same and shall furnish attested copies thereof upon the terms and in the manner provided in section two of this act.

SECTION 9. This act shall take effect upon its passage.

APPENDIX B.

AN ACT TO CONFIRM THE LOCATIONS OF ELECTRIC LINES.

SECTION 1. All locations for the poles, piers, abutments, conduits and other fixtures necessary to sustain and protect the wires of the lines of any of the companies mentioned in section one of chapter one hundred and twenty-two of the Revised Laws, and of any unincorporated owners and associations subject to the provisions of said chapter, heretofore granted by the mayor and aldermen of a city or the selectmen of a town and now in actual use by the respective companies, owners or associations to which the same were granted, and all alterations of such locations, shall upon compliance with the provisions of section two of this act be ratified and confirmed subject to all lawful terms, obligations, restrictions, limitations, regulations and conditions set forth in said grants and to all laws now or hereafter in force applicable thereto. Nothing herein contained and no act done hereunder shall be held to make lawful any of the structures hereinbefore named for which an express grant of location has not been made by the mayor and aldermen or selectmen, as the case may be, and which has not been erected, constructed and maintained in accordance with the requirements of said grant.

SECTION 2. Any company, owner or association desiring to avail itself of the provisions of this act shall, on or before the first day of January, nineteen hundred and twelve, file with the city or town clerk, as the case may be, to be recorded and kept with the records of original locations for poles and wires, a map or maps showing in detail the location and nature of the structures claimed to be within the provisions of section one, together with a memorandum of the respective dates of the several grants of locations therefor.

SECTION 3. This act shall take effect upon its passage.

APPENDIX C.

AN ACT TO PROVIDE FOR PLACING WIRES UNDERGROUND IN CERTAIN CITIES AND TOWNS.

SECTION 1. In a city or town containing not less than twenty-five thousand inhabitants the mayor and aldermen or the selectmen may, subject to the provisions of this act, cause to be removed from the streets of such city or town, within a district to be established as hereinafter prescribed, all wires, cables and conductors in or above such streets and all poles and other structures in said streets used for the support of the same, except such wires, cables, conductors, poles and structures as are hereinafter specifically excepted.

SECTION 2. The mayor and aldermen of a city or the selectmen of a town, who desire to avail themselves of the provisions of this act, may, after notice to all owners or users of overhead wires, cables and conductors and of poles and other structures used for the support thereof to be affected, and a public hearing, and subject to the consent of such owners and users, establish a district to which this act shall apply and determine the annual expenditure to be made by such owners and users for the purposes of this act. If within thirty days after the adoption of the order establishing such district all of the owners or users of said wires, cables, conductors, poles and structures affected thereby shall not consent in writing to the establishment of such district, the mayor and aldermen or the selectmen may appeal to the board of gas and electric light commissioners, who may thereupon, after notice to all parties interested and a public hearing, establish a district within such city or town to which this act shall apply, and determine the annual expenditure to be made by such owners or users for the purposes of this act, and its decision relative thereto shall be final.

SECTION 3. All wires, cables, conductors, poles and structures aforesaid within the district established under the provisions of the preceding section, other than such as are hereinafter specifically excepted, shall be removed or placed underground within the five calendar years next following the establishment of such district: *provided*, that such locations for underground conduits and other structures as are necessary are granted in due season so that the work may be completed within the time prescribed; and *provided, further*, that the mayor and aldermen or the selectmen may consent to such extension or extensions of time for doing the proportions of the work required to be done under the following section as they may deem reasonable. No locations for underground conduits and other structures granted pending an appeal under section two of this act shall be revoked by the mayor and aldermen or selectmen during said five-year period without the consent in writing of the board of gas and electric light com-

missioners. If, after said district is established, an owner or user of overhead wires, cables, conductors, poles or structures required to be removed or placed underground under the provisions of this section is aggrieved by the locations granted by the mayor and aldermen or selectmen for the necessary conduits and other underground structures therefor, such owner or user may within thirty days after such grant of location appeal therefrom to the board of gas and electric light commissioners who, after notice to the mayor and aldermen or selectmen and a public hearing, may affirm, amend, alter or add to such grant of location and the terms imposed thereon.

SECTION 4. Every owner or user of overhead wires, cables or conductors, and of poles and other structures for the support thereof, in a district established as hereinbefore prescribed, shall in each of the said five calendar years next following the establishment thereof construct not less than one-fifth of the total amount of underground conduits, ducts and manholes which it is to construct in said district pursuant to the requirements of this act: *provided, however*, that no owner or user of such wires, cables, conductors, poles and structures shall be required to expend in any one year for the purposes aforesaid more than such amount as shall be prescribed by the mayor and aldermen or selectmen, or board of gas and electric light commissioners, as the case may be, in the decision establishing such district as hereinbefore provided.

SECTION 5. No person, firm or corporation shall place any poles or other structures for the support of any wires, cables or conductors, except those hereinafter specifically excepted, in those parts of the streets included in a district established under section two from which the overhead wires, cables and conductors shall have been removed pursuant to this act, except temporarily and in emergencies, with the permission of the inspector of wires. If, after the expiration of the time herein prescribed for the removal of all the wires, cables, conductors, poles and structures in such district, there shall remain in any of the streets or parts of streets thereof any wires, cables, conductors, poles or structures which are by this act required to be removed, the inspector of wires shall cause the same to be removed, and the city or town may collect from the owners or users thereof, by an action at law, any expense involved in such removal.

SECTION 6. This act shall not apply to long-distance telephone wires, posts for the support of lamps exclusively or to poles used exclusively for local distribution from underground wires, cables or conductors, or to street railway trolley, guard and span wires or to poles for the support of the same; nor shall it affect or revoke any rights granted to any person, firm or corporation, prior to the establishment of a district as hereinbefore provided, to place or maintain any conduits, pipes, wires, cables or conductors underground; but any such conduits,

pipes, wires, cables or conductors laid thereafter in pursuance of any such grant shall be laid subject to the provisions of this act so far as they are not inconsistent with the terms of such grant. For the purpose of this act no wire shall be deemed to be a long-distance telephone wire which does not extend at least twenty-five miles from some central office.

SECTION 7. A district established under any special law or under section two hereof may be enlarged or an additional district or districts established from time to time upon the same proceedings being had with respect thereto as are set forth in section two hereof, and such enlarged or additional district or districts shall be subject to the other provisions of this act.

SECTION 8. The supreme judicial court or the superior court, or any justice thereof, shall, on petition of the inspector of wires, or of any person, firm or corporation affected by the provisions of this act, have jurisdiction in equity to enforce the provisions of this act, or of any order of the mayor and aldermen, selectmen or board of gas and electric light commissioners issued pursuant thereto, and to compel compliance therewith.

SECTION 9. This act shall take effect upon its passage.

FRENCH KING RAPIDS POWER COMPANY.

IN BOARD OF GAS AND ELECTRIC LIGHT COMMISSIONERS,
BOSTON, March 24, 1911.

To the Honorable the Senate.

We have the honor to acknowledge receipt of the following order and to submit our reply thereto:—

Ordered, That the Board of Gas and Electric Light Commissioners is hereby requested to inform the Senate, at as early a date as practicable, (1) what progress has been made by the French King Rapids Power Company in the construction of the dam and other structures which said company was authorized to construct by chapter 580 of the Acts of 1908; (2) when, in the opinion of the Board, said company will begin to generate and distribute electricity; (3) whether or not, in the opinion of the Board, said company is preparing to carry out the purposes for which it was incorporated with reasonable diligence.

By the provisions of chapter 580 of the Acts of 1908 (approved June 3, 1908), Philip Young, Henry I. Harriman, Joseph O. Proctor and their associates were authorized to organize a corporation under the provisions of chapter 110 of the Revised Laws, under the name of French King Rapids Power Company. Among the

purposes mentioned in the act is the power to construct, maintain and use a dam across the Connecticut River between the towns of Gill and Northfield, or Erving, with the necessary power houses, wings, retaining walls, canals and appurtenances, to convert the power generated at said dam into electricity, and to transmit, sell and distribute the same in said towns and in any cities and towns in the county of Worcester. Before construction of the dam is begun the company is required to obtain the approval of the Harbor and Land Commissioners. Unless the dam is built within five years after the passage of the act, the right to build the same ceases. The right to distribute and sell electricity ceases at the end of ten years from the passage of the act in any city or town, except Gill and Northfield, in which it shall not have entered upon the supply and sale of electricity for power.

In response to the Board's request the company has submitted for examination its records and books of account, certain deeds and engineering sketches, with a statement in writing relative to its history, condition and purposes.

On Feb. 10, 1909, the three incorporators named in said act organized, under the provisions of chapter 110 of the Revised Laws, the French King Rapids Power Company, with an authorized capital stock of \$5,000, and a certificate of incorporation therefor was duly issued by the Secretary of the Commonwealth on Feb. 11, 1909. On Feb. 11, 1909, the capital stock was paid in in cash, and was thereupon invested, \$5 in the organization fee and \$4,995 in the purchase of two parcels of land, one in Gill and one in Northfield; and the certificate of the payment of its capital stock required by law was filed with the Secretary of the Commonwealth on Feb. 12, 1911. So far as the company's records disclose, no further action has been taken by the stockholders or directors relative to the construction of the dam or to the generation and distribution of electricity. The company has not yet requested the Harbor and Land Commissioners to approve said dam, as required by said act.

The capital stock of the company, except such shares as are required to qualify its three directors, is owned by the Massachusetts Company, a corporation organized Dec. 17, 1908, under the Business Corporation Law. This latter company also owns the stock of the Connecticut River Transmission Company, a corporation organized under the provisions of chapter 110 of the Revised Laws. The stock of the Massachusetts company is owned by the Connecticut River Power Company of Maine, a corporation organized under the laws of the State of Maine. This Maine corporation also owns

the stock of the Connecticut River Power Company of New Hampshire. The charter of this New Hampshire corporation may be found in the laws of that State for 1903, chapter 306 (amended in 1907 by chapter 244, and in 1909 by chapter 326). It is given the right of flowage in the State of New Hampshire, if it shall procure and exercise the right to construct a dam across the Connecticut River at any point in this Commonwealth, subject to certain conditions and limitations set forth or referred to in said New Hampshire acts, and to the further condition that it shall first build a dam across the Connecticut River under its New Hampshire charter opposite the town of Vernon and north of the mouth of the Ashuelot River.

The Connecticut River Power Company of New Hampshire began the construction of a dam across the Connecticut River opposite the town of Vernon and north of the mouth of the Ashuelot River in 1907. Its dam and power house were completed and it began the generation and delivery of electricity therefrom in December, 1909. In the years 1908 and 1909 the Connecticut River Transmission Company, for the purpose of distributing and selling electricity to be generated at the Vernon dam, erected and is now operating a high-tension transmission line from the New Hampshire boundary into Gardner, Fitchburg, Clinton, Marlborough and Worcester. It is selling electricity to the electric light companies in Gardner, Fitchburg and Marlborough, and to certain large power users in the several municipalities reached by its lines.

The president of the French King Rapids Power Company informs the Board that the two parcels of land already acquired control the site of the dam which his company proposes to erect. He also states that the proposed dam will back the water into New Hampshire, and that before that could be done it was necessary to secure the authority from the State of New Hampshire, given by the acts above referred to, which he claims are sufficient for this purpose. He also states that, by arrangement with the Chase-Harriman Construction Company, surveys and soundings have been made, that the necessary data for the preparation of plans and the construction of the dam and power house at French King Rapids are available, and that his company expects to begin construction this summer. He also states that the charter of the French King Rapids Power Company was not obtained merely for the purpose of holding it, but that it did not seem wise to those controlling it and the development at Vernon, to construct a dam at the French King Rapids until the undertaking at Vernon was in successful op-

eration. The tracings, based on the surveys referred to, have been exhibited to the Board.

In the foregoing statement the Board has endeavored, from the sources named, to answer the first inquiry contained in said order. With respect to the second inquiry, from such information as the Board has relative to similar undertakings, in its opinion the company will not be in position to generate and distribute in less than a year and a half after the construction of its dam is begun. With respect to the third inquiry the Board is in doubt as to the meaning of the words "reasonable diligence," but in its opinion, if the company shall begin construction of the dam early in the coming summer it will be able to carry out the purposes for which it was incorporated within the five-year limit named in its charter.

FORREST E. BARKER,
MORRIS SCHAFF,
ALONZO R. WEED,

Gas and Electric Light Commissioners.

APPENDIX I.—COURT DECISION.

The Commonwealth of Massachusetts.

SUPREME JUDICIAL COURT.

POSTAL TELEGRAPH CABLE COMPANY OF MASSACHUSETTS

v.

CITY OF CHICOPEE.

207 Mass. 341.

Suffolk. Nov. 28, 1910 — Jan. 4, 1911.

Present: KNOWLTON, C.J., MORTON, HAMMOND, LORING and
SHELDON, JJ.

Telegraph Company. Wires. Constitutional Law, Interstate Commerce, Police Power. Municipal Corporations, By-Laws and Ordinances. Way, Public. Chicopee. Equity Jurisdiction.

KNOWLTON, C.J. This is a bill in equity¹ to enjoin the defendant from maintaining certain electric wires upon the plaintiff's telegraph poles. In 1891 the Postal Telegraph Cable Company of New York erected a telegraph line in the city of Chicopee from the line of the city of Springfield on the south, by a somewhat circuitous route, through Chicopee Center to Chicopee Falls, and thence northwesterly to the line of the city of Holyoke, this being a part of a telegraphic system extending into and through other States, which was used in part in interstate commerce. By a series of conveyances through different corporations this line has passed into the ownership of the plaintiff, which holds it, with all the rights and subject to all the liabilities of the original owner. It runs through public highways which are post roads. The plaintiff's predecessor in title had a right to construct and maintain such a line, and the plaintiff has a right to maintain it along public highways, under the U. S. Rev. Sts., sect. 5263. This right also is reaffirmed and extended to other classes of corporations by the R. L., c. 122, sect. 1. But it is subject to the right of cities and towns to make any reasonable local regulations in regard to the exercise of it. (R. L., c. 25, sect. 54: c. 26, sects. 2, 6.) These regulations, under

¹ Bill filed June 19, 1908, and on Sept. 11, 1908, a substitute bill filed by leave of court.

the Constitution of the United States, must be such as do not interfere with or regulate directly interstate commerce. These propositions are all well established by decisions of the Supreme Court of the United States.

On June 15, 1891, the plaintiff's predecessor in title, acting in accordance with the R. L., c. 122, sects. 1, 2, applied to the mayor and aldermen for authority in writing, fixing the location of its line and establishing its rights. In July, 1891, the city of Chicopee passed an ordinance, which is chapter 17 of the ordinances of that year, and which provided that the mayor and aldermen should have the exclusive power to license the erection and maintenance of telegraph and telephone and other lines of electric wires within the city, and that any license granted pursuant to the ordinance should be subject to the right of the city, free of charge, to place its fire-alarm telegraph or other electric wires upon the poles or through the conduit so licensed to be maintained, and to the right of the city to license the location of lines by any other person or corporation upon said poles and through said conduit, upon payment being made of a reasonable compensation, to be determined by the parties, or, if they fail to agree, to be determined by the mayor. There was also a requirement that all parties licensed to erect poles and fixtures and to maintain electric wires should give to the city an agreement in writing to save it harmless from all claims for damages, costs, expenses, charges or compensation for or on account of the erection, maintenance or use of such poles, fixtures or wires. It also provided for the appointment and term of office of an inspector of wires, and for many other things, with a view to the proper regulation of the business of maintaining and using electric wires within the city.

The committee on highways, to whom was referred the application of the Postal Telegraph Cable Company for a permit, reported on July 6, 1891, recommending the granting of the petition, with certain modifications, and that the company must agree to comply with the city ordinance entitled "Electric Wires." The ordinance was ordained at or about the same time. On the day when the report was filed it was accepted, and the clerk was instructed to notify the petitioner that the petition would be granted upon compliance with the restrictions and agreements therein enumerated. On September 7, two months later, an order was passed by the mayor and aldermen that permission be given the petitioner to erect its lines in the specified streets, "upon the following express conditions, a violation of any of which shall, at the election of the

board of aldermen, operate as forfeiture of the permission and rights herein granted, to wit:—

“1st. That said company shall agree to comply with the requirements of chapter 22 of the Revised Ordinances of the city of Chicopee.

“2d. That said company shall use the poles now erected in said city on Broadway from the house of Charles T. Hendrick to the Overman Wheel Company's factories. . . .

“4th. That the officers and members of the fire department may, in the event of a fire and whenever in connection therewith they deem it proper, cut the wires of said company, and that if so cut they shall be repaired at the expense of said company.

“5th. That said company shall, before any work or construction in said streets or highways is done, execute under seal a contract in the words following, all blanks being properly filled, and deliver the same to the city.”

Then followed an agreement to indemnify the city from loss, cost or damage suffered by reason of the erection or maintenance of the poles or wires. This contract was signed by one of the officers of the company, but was never returned to the defendant. By a clerical error the chapter of the ordinance was referred to in this order as 22, instead of 17, the number intended. Chapter 22 is an ordinance relative to public parks, and it makes no reference to locations, poles or wires. Nearly all of the line was built after this location was granted, although about half a mile of it was constructed before the license was granted.

This was the first location granted in the city of Chicopee for the erection and maintenance of electric wires. Since then the city has granted four locations to the Holyoke Street Railway Company, one location to the United Electric Light Company of Springfield, two locations to the J. Stevens Arms and Tool Company, thirty-one locations to the New England Telephone and Telegraph Company, and one location to the Postal Telegraph Cable Company of New York. There are now 10 miles of trolley lines in Chicopee, not including span wires and feed wires, about 6 miles of municipal fire-alarm lines averaging two wires, and about 30 miles of poles of the New England Telephone and Telegraph Company, carrying, on the average, a large number of wires.

Beginning more than ten years ago, and ending before April, 1908, the city put municipal electric light wires upon eighty-seven of the plaintiff's poles, making two hundred and twenty-three hitches in all and put eight hitches in all of municipal fire-alarm

wires on the poles of the plaintiff. Up to the end of that time all this was done without objection of the plaintiff or its predecessors in title, and without any requirement or tender of payment for the benefit. During this time the general officers of the plaintiff and its predecessors had no knowledge of this use of the poles, although the company's district foreman, whose duty it was to report anything going on along the lines of interest to the company, knew it and reported it to the circuit manager at Boston. The master's report gives us the ordinance in full, together with an elaborate statement of conditions as to different lines of wires in different places, and other important facts, much in detail.

It is obvious that in framing the ordinance the city council attempted to make careful provision for the protection of the public, in view of the probability of a great increase in the number of applications for authority to transmit electricity for various purposes through the streets. It is certain that careful regulation of the erection and maintenance of poles and wires in the streets of a city is necessary, in the public interest. As cities grow compact, and the need of using many wires for the transmission of electricity for many different purposes, on closely built streets, becomes more urgent, relief from inconvenience and danger can only be had by the removal of overhead wires from the streets and placing them in conduits underground. By the running of lines of wire upon different sets of poles in a crowded city, the difficulty of extinguishing fire and preventing a conflagration is often greatly increased, as well as the danger and inconvenience in using the streets in the ordinary way, and the unsightliness of numerous poles and wires. It was therefore reasonable and proper that the ordinance should forbid the unnecessary duplication of lines and of poles in public places. This was done in the requirement that licenses might be granted by the mayor and aldermen to other companies to use the same poles by making reasonable compensation therefor. This was nothing more than a regulation that, if two or more companies desired to run two lines of wires through a street, they might be required, if it could be done reasonably, to put them on the same line of poles, the two companies sharing the expense equitably. This was entirely reasonable. To the same effect and for the same purpose was the provision in the order granting the permit to the plaintiff's predecessor, that the company should "use the poles now erected in said city on Broadway from the house of Charles T. Hendrick to the Overman Wheel Company's factories." The plaintiff has made no objection to these regulations. The city's wires for

a fire-alarm telegraph and those for the municipal lighting which was undertaken several years later were also to be provided for, and if there had been a provision for pecuniary compensation by the city for the benefit that it might derive in this way, the reasons already referred to plainly would have been an ample justification for the requirement that the plaintiff's predecessor should allow the wires to be put upon its poles. The reason for this regulation in the ordinance plainly was to protect the interest of the public. That the plaintiff would be subjected to some slight burden and increased expense in the construction of its line, for the protection and convenience of the public in the use of the streets and in the preservation of their property, surely did not deprive the mayor and aldermen of the right to impose the requirement upon it as a regulation. The very idea of regulation involves, not only possible restriction in the exercise of rights and the use of property, but also possible expenditure in the public interest, to make one's property available or one's rights enjoyable in the best way. The rights and interests of the public and the individual must be considered alike in making police regulations for the common good. 'Unless this burden is excessive, and plainly unreasonable in reference to the benefits to be derived from the imposition of it, the ordinance is not invalid by reason of the requirement that it makes of the plaintiff.

Does the fact that the city derives a benefit from it, for which it makes no direct payment, change the character of the provision? In framing the ordinance the city might well take into account the probable expense to be incurred for the inspection of the lines from time to time, to diminish the risk of accident, and the liability of the city for injuries suffered by travelers from an unsafe condition of the poles or wires. The mayor and aldermen properly could require a pecuniary payment by the telegraph company to meet this cost of inspection, and this risk of loss, to which the city would be subjected. This has been directly decided, even when the payment required was in the form of a tax, if the amount was such that it did not appear to be a tax for revenue, but merely a compensation for the reasonably anticipated cost of protecting the public. (*Western Union Telegraph Co. v. New Hope*, 187 U. S. 419; *St. Louis v. Western Union Telegraph Co.*, 148 U. S. 92; *Atlantic & Pacific Telegraph Co. v. Philadelphia*, 190 U. S. 160; *Postal Telegraph Cable Co. v. Taylor*, 192 U. S. 64.)

The burden of expense put upon the plaintiff and its predecessors is very small. The first company was obliged, for its own purposes,

to erect poles for its wires. The plaintiff's lines in the city of Chicago consist of about two hundred and fifty poles, and five wires upon one six-pin cross arm, attached to the top gain of each of these poles. The poles, as they are described by the master, would readily carry many more wires besides those belonging to the city, — probably many more than the plaintiff will ever have occasion to put upon them. The attachment of the city's wires has increased the expense to the plaintiff in only a trifling sum. Indeed, it is found that this increased expense did not attract the attention of the general officers of the company until more than ten years after a considerable part of it had been incurred, and then only when a letter had been written by the defendant's inspector of wires, demanding that a cross-arm on some of the poles be lowered one gain, to make a place for the city's wires. The master has found that the cost to the city of the inspection of the plaintiff's poles and wires is small. Probably it is smaller than was expected when the ordinance was adopted; but it is a real and constant expense every year. Very likely, in a series of years covering the life of a line of poles, this expense would be much more than the additional cost to the plaintiff of a bar on the poles for such wires as the city would want to put there. We are of the opinion that the ordinance, in the parts in question, was reasonable, and proper, and so within the authority conferred by the R. L., c. 25, sect. 54, and c. 26, sects. 2, 6.

The plaintiff complains that, while a part of the defendant's electric lighting is done by the direct system, carrying a very light current of electricity, another part of it is done with an alternating current of high tension, and that the proximity of wires carrying such a current increased the danger to persons making repairs upon its lines, and is objectionable by reason of the effect of induction. The master has found that there is more danger and that more care is required in making repairs where wires of high tension are in close proximity than where there are none; but he also found that there had been no injury to the plaintiff's servants or to its property from this cause. It is obvious that this is a matter simply calling for proper care on the part of those who are engaged in the work, and that the care must be adapted to circumstances of greater danger. As bearing upon the questions involved, this does not seem to us a matter of much importance. It relates simply to the method of doing work which is done in every city and large town, and in which there is no inherent difficulty, if proper precautions are taken.

The master considered the subject of induction, and has found,

in substance, that the inductive effect of nearby high-tension wires interferes with the efficient operation of a telegraph system, but that the defendant's wires have had no appreciable effect upon the plaintiff's business in this particular. In the first place, for the most part these wires are not charged with electricity in the daytime. In the next place, to produce any serious interference with the plaintiff's business would require a longer line of parallel high-tension wires than exists in that city. It was not shown that there had been any specific instances of trouble on the plaintiff's line in Chicopee, caused by the proximity of high-tension wires, or that the increase of voltage on its system was due in any degree to inductive difficulties caused by the proximity of the defendant's wires. He did find, however, that, by reason of inductive disturbances over its entire system, the plaintiff has been compelled to increase its voltage on its system over that which was formerly sufficient for the operation of its lines. Of course he found that inductive disturbance from other lines did not depend at all upon the wires being upon the same poles, except so far as they might be in closer proximity than if attached to an independent line of poles. The possibility of detriment to the plaintiff from induction, by reason of having these wires on its poles instead of upon independent poles, seems to be of little consequence, as against the importance of keeping the obstructions in the streets of the city as few as possible.

If these requirements of the ordinance were not unreasonable or invalid under the statutes of this Commonwealth, it follows almost necessarily that they were not an interference with interstate commerce. They were adopted in the exercise of the police power, in reference to a local matter of public importance, about which Congress had taken no action. In *Western Union Telegraph Co. v. Pendleton*, 122 U. S. 347, 359, it was said that, within the limitation that it does not encroach upon the free exercise of the powers vested in Congress by the Constitution, a State "may, undoubtedly, make all necessary provisions with respect to the buildings, poles and wires of telegraph companies within its jurisdiction which the comfort and convenience of the community may require." A provision almost identical with that in the present case was upheld in *St. Louis v. Western Union Telegraph Co.*, 148 U. S. 92, and was assumed to be reasonable on the rehearing of the case, in 149 U. S. 465, and in the opinion in *Western Union Telegraph Co. v. New Hope*, 187 U. S. 419. In the first of these cases an additional requirement of a money payment by the tele-

graph company to the city was upheld, on the ground that it was to be treated as rent for the "absolute, permanent and exclusive appropriation" of space in the streets. Assuming that the statutes of this Commonwealth do not authorize a city to claim rent of a telegraph company for the use of the streets as property, the principles involved in other branches of this decision and in other decisions of the same court seem to cover the present case. It is well established that a police regulation of a State, affecting interstate commerce only indirectly, in a field which has not been occupied by congressional legislation, is not a regulation of such commerce within the implied prohibition of the Constitution of the United States. (*Mississippi Railroad Commission v. Illinois Central Railroad*, 203 U. S. 335, 346; *Lake Shore & Michigan Southern Railway v. Ohio*, 173 U. S. 285, 298.) All that has been done by the defendant under this ordinance seems to have but a slight and incidental effect upon interstate commerce, through the imposition of a local regulation of the use of the streets, for the purpose, primarily and principally, of preventing the erection of unnecessary and objectionable poles to the obstruction of travel; and secondarily, to provide compensation for the expense to the city of inspecting the line of telegraph for the protection of the public.

If it were held that the ordinance goes too far in requiring the plaintiff to permit other companies, if licensed by the city, to use its poles upon making compensation, and the city to use them for public purposes without compensation, it does not follow that the plaintiff should have an injunction. The vote of the city upon the report of the committee, which was communicated to the plaintiff's representatives, referred to the ordinance as entitled "Electric Wires." Then the formal order, which referred to the ordinance by a wrong number, put the plaintiff on inquiry as to the contents of the ordinance. It is hardly possible that the plaintiff's representatives did not understand, in general, the conditions under which they were permitted to erect their poles. The use of these poles by the city under these circumstances, for more than ten years without objection or claim of compensation, will hardly permit the enforcement of the plaintiff's alleged equitable right against the defendant. There is much in the case to support the defendant's argument that there has been laches. If the highest officers of the company were ignorant of the facts, its agents, who were in charge of business of this kind, knew all about them.

If the existence of the defendant's wires upon the plaintiff's

poles were a technical invasion of the plaintiff's right, we are of opinion, upon the facts of this case, that the relief granted should not be an injunction against the continuance of the wires upon the poles, thus compelling the erection of new poles and the attachment of the wires to them. The master has found that this change could not be made without a large expenditure of money. Moreover, it would involve a crowding of the streets with poles, which the mayor and aldermen have rightly been attempting to prevent. It appears that, at present, in one or two places there are four or five poles in front of one house. The master finds that, if the change were made as the plaintiff desires, there would be at least two places where there would be four or five poles within a distance of 75 feet. It would be more equitable, if the plaintiff's right were established, that its relief should be by compensation in damages.

But for reasons already stated, the entry will be,

Bill dismissed.

G. P. WARDNER, *for the plaintiff.*

L. WHITE, *for the defendant.*

APPENDIX J.—NEW LEGISLATION, 1911.

ACTS.

CHAPTER 10.

An Act relative to the Abatement of Smoke in Boston and Vicinity.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter six hundred and fifty-one of the acts of the year nineteen hundred and ten is hereby amended by inserting after the word “as”, in the twelfth line, the word:— heretofore,— so that the paragraph hereby amended will read as follows:—

“Chart” means Ringelmann’s Smoke Chart as heretofore published and used by the United States Geological Survey.

SECTION 2. This act shall take effect upon its passage. [*Approved February 6, 1911.*]

CHAPTER 31.

An Act relative to the Recovery of Damages for Conscious Suffering resulting in Death.

Be it enacted, etc., as follows:

SECTION 1. In any action brought under the provisions of section two of chapter one hundred and seventy-one of the Revised Laws, as amended by section one of chapter three hundred and seventy-five of the acts of the year nineteen hundred and seven, damages may be recovered, under a separate count at common law, for conscious suffering resulting from the same injury; but any sum so recovered shall be held and disposed of by the executor or administrator as assets of the estate of the deceased.

SECTION 2. This act shall take effect upon its passage. [*Approved February 15, 1911.*]

CHAPTER 43.

An Act relative to the Annual Preparation and Printing of a List of State Officials and their Employees with their Salaries or Compensation.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter two hundred and sixty-eight of the acts of the year nineteen hundred and ten is hereby amended by striking out the words “the complete data and facts called for

by this act", in the last line, and inserting in place thereof the words:— a summary by departments, commissions, bureaus and boards of the total number of officials and employees employed in or by every such department, commission, bureau and board and the total amount paid for services by every such department, commission, bureau and board from the treasury of the commonwealth, and, respectively, the whole number of such officials and employees, and the whole amount paid for services in a grand total; and a summary by every such department, commission, bureau and board of the total number of such officials and employees and the total amount paid for services for the year nineteen hundred and ten, and for each and every year thereafter, — so as to read as follows: — *Section 1.* Every department, commission, bureau or board of the commonwealth, shall, on or before the fifteenth day of July in the year nineteen hundred and ten, and on or before the fifteenth day of July in every year thereafter, prepare and furnish to the governor and council lists of all the officials and employees of the commonwealth employed in or by such department, commission, bureau or board on the first day of July preceding, for whose services money has been paid from the treasury of the commonwealth. The said lists shall be arranged by divisions of the several departments, commissions, bureaus or boards, when such divisions exist, and shall give the name, residence, designation, rate of compensation and the date of election or appointment of every such official and employee, and any increase in the rate of salary or compensation for the year preceding; and also the aggregate amount of all money paid for services or salaries to any official or employee, not otherwise shown upon the list, for the year beginning with the first day of July in the year preceding that in which the list is prepared. It shall be the duty of the auditor of the commonwealth to verify the said lists, the compensation and the said aggregate amounts from the pay roll. The said lists and aggregate amounts shall be printed at the expense of the commonwealth as a document of the commonwealth, before the first day of October in the year in which they are furnished, and the said document shall contain a summary by departments, commissions, bureaus and boards of the total number of officials and employees employed in or by every such department, commission, bureau and board and the total amount paid for services by every such department, commission, bureau and board from the treasury of the commonwealth, and, respectively, the whole number of such officials and employees, and the whole amount paid for services in a grand total; and a sum-

mary by every such department, commission, bureau and board of the total number of such officials and employees and the total amount paid for services for the year nineteen hundred and ten, and for each and every year thereafter.

SECTION 2. This act shall take effect upon its passage. [*Approved February 11, 1911.*]

CHAPTER 78.

An Act relative to Town Meetings in the Town of Peabody.

Be it enacted, etc., as follows:

SECTION 1. No action shall be taken at any town meeting in the town of Peabody appropriating or involving the expenditure of money, the creating of a debt, or the disposal of any town property, until the proposed action has been submitted to the finance committee, and report made thereon.

SECTION 2. Whenever the warrant for any town meeting contains any article or articles proposing the appropriation or expenditure of money, the creation of a town debt or the sale of any town property, the selectmen shall, six days at least before the day named in the warrant for holding such town meeting, transmit to the finance committee a copy of said article or articles, and the finance committee shall thereupon meet and, on the organization of such town meeting, make report thereon to the town.

SECTION 3. Whenever any question is brought before the town meeting involving the raising, paying or appropriating of money, the disposal of any property of the town or any interest therein, or in any way creating a town debt or expenditure, the vote upon such question shall be taken by ballot, if, before the main question is put to vote, ten legal voters shall so request; the ballot to be prepared and voting booths used as in the Australian ballot system.

SECTION 4. The recommendation of the finance or other committee upon any such question shall be divided into separate propositions whenever it seems to the committee desirable so to do, and the town may still further divide the propositions submitted by the committee. These propositions in such form as the town may decide, shall be placed upon the ballot. One alternative proposition under each division of the subject, shall, if the town so votes, be placed along with that submitted by the committee.

SECTION 5. The ballot as presented to the voter shall have provided a place for voting Yes or No against each appropriation or procedure under each division of the subject.

The order of printing upon the ballot shall be:—

1. The proposition of the committee.
2. Any alternative proposition which the town has directed to be made.
3. A provision to negative any procedure, payment or appropriation.

SECTION 6. The preparation and printing of the ballot shall be under the direction of the town clerk. No proposition shall become effective except by a majority vote.

SECTION 7. When all the articles in the warrant have been considered, an adjournment shall be made of at least three days, and at the adjourned meeting the first business shall be to ballot upon the articles that require the ballot. If any item of ordinary expenditure fails to be provided for by this ballot, the matter shall still be before the town for further consideration, and in an amended form may, on demand of ten legal voters, again be submitted to vote by ballot. In this case as before, adjournment shall be had for at least three days.

SECTION 8. At the meeting designated for taking the ballot the polls shall be kept open for such time as the town may direct, but not less than four hours, two hours of which shall be before sundown.

SECTION 9. No vote shall be passed appropriating or involving the expenditure of money at any town meeting other than the annual meeting, unless there shall be at least one hundred legal voters present and voting in favor of such appropriation or expenditure.

SECTION 10. Whenever any question is brought before the town meeting involving the raising, paying or appropriating of money, the disposal of any property of the town or any interest therein, or in any way creating a town debt or expenditure the vote upon such question shall be taken at said meeting by a printed Yes or No ballot, the check list being used, if three or more legal voters so request: *provided, however*, that this method of voting shall not be employed if ten or more legal voters request that the proposition be placed upon the ballot as provided in sections two to eight, inclusive, of this act.

SECTION 11. No vote relative to the raising, paying or appropriating of money shall be reconsidered in town meeting by any less number of votes than were present at the former consideration of the same. And in order to ascertain the number rightly, the moderator shall, when any money matter is first considered and voted

upon in town meeting, count the number of votes, and the town clerk shall make a proper minute or memorandum thereof, and, as soon as can conveniently be done, shall enter the same in the town books for reference as occasion may require.

SECTION 12. This act shall take effect upon its passage. [*Approved March 1, 1911.*]

CHAPTER 108.

An Act to authorize the Town of Danvers to distribute Electricity in the Towns of North Reading and Middleton.

Be it enacted, etc., as follows:

SECTION 1. The town of Danvers is hereby authorized to supply electricity for its municipal use in the towns of North Reading and Middleton, and to sell and distribute electricity to the Middleton Electric Light Company, to such of the inhabitants of the town of Middleton as are now supplied by the town of Danvers, and, with the consent of the Middleton Electric Light Company, to the town of Middleton for municipal use, and to such of the inhabitants of the town of Middleton as may hereafter apply to the town of Danvers therefor, with the same rights and privileges and subject to the same conditions, limitations and obligations as it may now or hereafter have or be subject to with respect to the sale and distribution of electricity within its own boundaries. No contract to supply the Middleton Electric Light Company shall be made for a period of more than ten years.

SECTION 2. The town of Danvers may construct and maintain in the towns of North Reading and Middleton lines for the transmission of electricity for the purposes mentioned in section one: *provided, however*, that it shall obtain from the selectmen of the towns of Middleton and North Reading locations for all poles, wires and other distributing apparatus constructed and maintained for the purposes aforesaid upon, along, under or across any public ways within the said towns, in the same manner and upon the same terms as are provided by law for companies incorporated for the transmission of electricity for light, heat or power.

SECTION 3. All acts of the town of Danvers or its duly constituted officers heretofore done with intent to exercise the authority conferred by this act are hereby ratified and confirmed.

SECTION 4. If the town of Middleton shall hereafter establish an electric lighting plant, it shall, under the provisions of sections ten, eleven and twelve, as amended, of chapter thirty-four of the Revised

Laws and of any general laws hereafter enacted relating to the purchase of electric light plants by a city or town, purchase the plant and property within its limits owned by the town of Danvers in like manner as if the same were the plant and property of a private person, firm or corporation: *provided, however*, that the town of Danvers shall have no right to refuse to sell its plant and property within the limits of the town of Middleton, but shall sell and convey the same to the town of Middleton within the time and in the manner prescribed by law for the sale to a municipality of electric light plants privately owned, and thereupon the right of the town of Danvers to maintain an electric light plant or to sell electricity within the limits of the town of Middleton shall cease, except that nothing in this section shall prevent the town of Danvers from supplying or continuing to supply itself for its municipal use in the towns of Middleton and North Reading.

SECTION 5. This act shall take effect upon its passage. [*Approved March 4, 1911.*]

CHAPTER 124.

An Act relative to the Taking of Land by the Town of Danvers for its Electric Light Plants.

Be it enacted, etc., as follows:

SECTION 1. Section six of chapter three hundred and seventy-eight of the acts of the year eighteen hundred and ninety-one is hereby amended by inserting after the word "take", in the third line, the words: — or acquire by purchase or otherwise, — by inserting after the word "any", in said third line, the word: — additional, — and by striking out the words "one acre", in the fourth line, and inserting in place thereof the words: — three acres, — so as to read as follows: — *Section 6.* For the purposes of this act said town may use any unoccupied land now owned by it, or may take or acquire by purchase or otherwise, at a meeting called for that purpose, any additional land within its limits not exceeding three acres and not already appropriated to public uses. The selectmen of said town shall, within sixty days after said taking, file in the registry of deeds for the southern district of the county of Essex such a description of the land so taken as is required in a common conveyance, and a statement of the purpose for which the land is taken, which description and statement shall be signed by the selectmen or a major part of them, and the title of such land shall vest in the town of Danvers from the date of such filing.

SECTION 2. This act shall take effect upon its passage. [*Approved March 9, 1911.*]

CHAPTER 163.

An Act relative to the Penalty for giving False Weight and Measure.

Be it enacted, etc., as follows:

Section one of chapter three hundred and ninety-four of the acts of the year nineteen hundred and seven, is hereby amended by striking out the words "is guilty of giving", in the second and third lines, and inserting in place thereof the words:— gives or attempts to give,— so as to read as follows:— *Section 1.* Whoever, himself or by his servant or agent or as the servant or agent of another person, gives or attempts to give false or insufficient weight or measure shall for a first offence be punished by a fine of not more than fifty dollars, for a second offence by a fine of not more than two hundred dollars, and for a subsequent offence by a fine of fifty dollars and by imprisonment for not less than thirty nor more than ninety days. [*Approved March 17, 1911.*]

CHAPTER 178.

An Act relative to commencing Actions for the Recovery of Damages for Injuries or Death.

Be it enacted, etc., as follows:

SECTION 1. Section one hundred and thirty-two of chapter five hundred and fourteen of the acts of the year nineteen hundred and nine, as amended by section two of chapter one hundred and sixty-six, and by chapter six hundred and eleven of the acts of the year nineteen hundred and ten, is hereby further amended by inserting after the word "appointment", in the twelfth line, the words:— and in such case the action may be begun within one year after the appointment of such executor or administrator,— so as to read as follows:— *Section 132.* No action for the recovery of damages for injury or death under the provisions of the five preceding sections shall be maintained unless notice of the time, place and cause of the injury is given to the employer within sixty days, and the action is commenced within one year, after the accident which causes the injury or death. Such notice shall be in writing, signed by the person injured or by a person in his behalf. If the person injured dies within the time required for giving the notice his executor or administrator may give such notice within sixty days after his appointment; and in such case the action may be begun within one year after the appointment of such executor or administrator. If from physical or mental incapacity it is impossible for the person

injured to give the notice within the time provided in this section, he may give it within ten days after such incapacity has been removed, and if he dies within said ten days his executor or administrator may give such notice within sixty days after his appointment. If the employer dies without such notice having been given and before the time for giving such notice has elapsed, the notice may be given to his executor or administrator, and the time within which the notice may be given as herein provided, shall run from the appointment of the executor or administrator. A notice given under the provisions of this section shall not be held invalid or insufficient solely by reason of an inaccuracy in stating the time, place or cause of the injury if it is shown that there was no intention to mislead, and that the employer was not in fact misled thereby. If the employer dies without such action having been brought and before the time for bringing the action has elapsed, the action may be begun against his executor or administrator not less than one year and not more than two years after the executor or administrator has given bond for the performance of his trust.

SECTION 2. This act shall apply to cases now pending or hereafter brought within the time herein stated. [*Approved March 22, 1911.*]

CHAPTER 184.

An Act to provide Penalties for wilfully making False Reports to Commissions or Commissioners.

Be it enacted, etc., as follows:

Any person who shall wilfully make false report to the railroad commission, the gas and electric light commission, the highway commission, the insurance commissioner, the bank commissioner or the commissioner of corporations, or who shall testify or affirm falsely to any material fact in any matter wherein an oath or affirmation is required or authorized, or who shall make any false entry or memorandum upon any book, report, paper or statement of any company making report to any of the said commissions or commissioners, with intent in any case to deceive the commission or commissioner, or any agent appointed to examine the affairs of any such company, or to deceive the stockholders or any officer of any such company, or to injure or defraud any such company, and any person who with like intent aids or abets another in any violation of this act shall be punished by a fine of not more than one thousand dollars, or by imprisonment for not more than one year, or by both such fine and imprisonment. [*Approved March 25, 1911.*]

CHAPTER 207.

An Act relative to the Appointment and Duties of Town Accountants.

Be it enacted, etc., as follows:

Section six of chapter six hundred and twenty-four of the acts of the year nineteen hundred and ten is hereby amended by striking out the word "who", in the seventh line, and inserting in place thereof the words: — or to such committee as the town may appoint to consider and report on proposed appropriations. The selectmen, or said committee when so appointed,— so as to read as follows: —

Section 6. The town accountant shall immediately upon the close of the fiscal year compile statements in tabulated form so as to show the amounts appropriated and the amounts expended from each appropriation during the preceding year, and the estimates for the current year, and shall forthwith furnish a copy of the same to the selectmen, or to such committee as the town may appoint to consider and report on proposed appropriations. The selectmen, or said committee when so appointed, shall, after due consideration, designate the amounts which in their opinion should be appropriated for the ensuing year, and shall accompany the same with such explanations and suggestions in relation to proposed appropriations as they may deem desirable for the proper information of the citizens. The selectmen shall cause this document to be printed and to be distributed in advance of or at the annual town meeting, and the town clerk shall transmit a copy of the same and of all town reports to the director of the bureau of statistics. [*Approved March 28, 1911.*]

CHAPTER 249.

An Act relative to the Payment of Wages by Certain Manufacturing Corporations and Manufacturers.

Be it enacted, etc., as follows:

SECTION 1. Manufacturing corporations and contractors, persons or partnerships engaged in any manufacturing business wherein one hundred employees or more are employed shall, on the day chosen as pay day, pay such of their employees as are on that day working in the manufacturing establishment, before the close of the regular working hours.

SECTION 2. Whoever violates the provisions of this act shall be punished by a fine of not more than fifty dollars. [*Approved April 6, 1911.*]

CHAPTER 267.

An Act relative to Wires and Electric Appliances in the City of Beverly.

Be it enacted, etc., as follows:

SECTION 1. The mayor of the city of Beverly may appoint an officer or officers, hereinafter called "the commission", who shall have exclusive authority to cause to be removed from the public ways or places of the city within the district hereinafter prescribed all wires, cables, and conductors in or above said ways or places, and all poles and other structures in the same used for the support of such wires, cables, and conductors, except such wires, cables, conductors, poles and structures as are hereinafter excepted, and to cause all wires, cables, and conductors within said district to be placed and operated underground in accordance with the provisions of this act. It shall be the duty of such commission, and it shall have exclusive authority, to grant all necessary permits for such wires, cables and conductors which are to be placed and operated underground as aforesaid; and it shall be the duty of the superintendent of highways and sewers, and he shall have exclusive authority, to issue proper permits for the opening and occupying of such ways or places as may be necessary to carry out the intent of this act, upon the application of the commission, or of any person or corporation interested.

SECTION 2. Said commission shall in each January after the passage of this act, until the work herein provided for is completed, prescribe and give public notice thereof in at least one daily newspaper in said city by advertisement therein twice a week for two successive weeks, a portion of the following public ways and places in said city, to wit: — Cabot street from the Salem-Beverly bridge to Herrick street, Rantoul street from Cabot street to Cabot street, Railroad avenue from Cabot street to Park street, Broadway from Cabot street to Park street, Bow street from Cabot street to Rantoul street, Federal street from Cabot street to Rantoul street, Elliott street from Cabot street to Rantoul street, Stone street from Cabot street to Lothrop street, Bartlett street from Cabot street to Stone street, Washington street from Cabot street to Lothrop street, Thorndike street from Cabot street to Lothrop street, Abbott street from Cabot street to Lothrop street, Monument square, Hale street from Cabot street to East Corning street, Essex street from Cabot street to Peabody avenue, Knowlton street from Cabot street to Dane street, Dane street from Cabot street to Lothrop street, Ober street from Hale street to the shore, Neptune street from Ober street

to Corning street, Pleasant street from Cabot street to River street, Pond street from Cabot street to Rantoul street, Central street from Cabot street to Lothrop street, Atlantic avenue from Hale street to Lothrop street, Lothrop street from Stone street to Hale street, Lovett street from Bartlett street to Ocean street, West Dane street from Rantoul street to Cabot street, Judson street, Highland avenue entire, Roundy street from Cabot street to Rantoul street, Winter street,— within which portion all wires, cables and conductors, except such as are hereinafter excepted, shall, during that calendar year, be removed or placed underground, but the total extent of such portion so prescribed shall not comprise in the first year, beginning in January following the passage of this act, more than one mile of public ways and places, nor in each calendar year thereafter more than two miles, according to linear surface measurement; and said commission shall cause the owners or users of such wires, cables or conductors to remove or place them underground, and also to remove any poles or structures used to support such wires, cables or conductors in the public ways and places, or portions thereof, in any such prescribed portion of such section, except when in the judgment of said commission it is impracticable or inexpedient to remove any such wires, cables, conductors, poles or structures: *provided, however*, that no one person or corporation shall be required to expend more than thirty-five thousand dollars during the year nineteen hundred and twelve or more than twenty-five thousand dollars in any one of the years nineteen hundred and thirteen to nineteen hundred and twenty, inclusive, under the provisions of this section or any other provisions of this act; it being, nevertheless, the purpose of this act to cause the removal from the above-named public ways and places of said city prior to the first day of January, nineteen hundred and twenty-two, of all such wires, cables, conductors, and all poles or structures used for the support of such wires, cables and conductors, not herein expressly excepted, so far as in the judgment of said commission the same is practicable and expedient; and every owner or user of such wires, cables and conductors, poles or structures shall, prior to said first day of January, nineteen hundred and twenty-two, remove or place the same underground in accordance with the provisions of this act; and it shall be the duty of the commission to enforce compliance with the provisions of this section. The estimates, contracts and expenditures, of the persons or corporations affected by this act, relative to the doing of the work herein provided for, shall, at all reasonable times, be open to the examination and inspection of the commission.

SECTION 3. After such portion of said public ways and places shall have been prescribed as aforesaid, no person, firm or corporation shall place any poles or other structures for the support of wires, cables or conductors, except those herein expressly excepted, in any way or place, or portion thereof, thus prescribed except temporarily, and with the consent of the commission; and if after the expiration of that calendar year there shall remain in such ways, or places, or portions thereof, any poles or structures, wires, cables or conductors which under the provisions of this act should have been removed or placed underground, the said commission shall cause the same to be removed forthwith, and the said city may collect the expenses of such removal from the owners or users by an action at law, provided that there was no unreasonable delay in the issuance of the necessary permits by the proper authorities.

SECTION 4. Whenever it shall be determined by the municipal authority authorized to lay out, pave or repave, any of the ways or places named in section two, or portions thereof, during the period in which the purposes of this act are being carried out, public notice thereof shall be given by said commission in the manner provided in section two of this act, before the beginning of said work, and any person or corporation duly authorized by law at the time to lay or erect or maintain wires in said ways and places, shall, if so ordered by said commission, place his or its pipes, conduits, wires, cables and conductors underground through said ways or places, or portions thereof, and remove any poles or structures used therein to support said wires, cables or conductors within such time as shall be specified in said notice; and thereafter no person, firm or corporation shall place any wires, poles or other structures in or above, or, without the express permission of the mayor and aldermen of said city, lay any pipes, conduits, wires, cables or conductors through said ways or public places, or portions thereof, except as especially excepted by this act; but this provision shall not be construed to prevent any such person, firm or corporation from thereafter, upon receiving a permit in accordance with the ordinances of said city, making necessary repairs or service connections with conduits, pipes, wires, cables or conductors in such ways or places, or drawing wires or cables into the conduits constructed therein.

SECTION 5. Upon application of any person, firm or corporation duly authorized by law to lay, erect or maintain, and maintaining wires in the ways of said city, the commission may grant permission, after due hearing, for the removal of any such wires, cables, conductors, poles or structures within any of the ways or places

named in section two and not prescribed in any year, or within ways or places of said city outside those so specified in section two, and for the placing of the same and any other necessary wires, cables and conductors, and any extensions thereof underground as herein provided; and it shall be the duty of the superintendent of highways and sewers, after the granting of said permission, to issue all permits for opening and occupying the ways of said city which may be necessary to carry out the intent of the foregoing provision, upon the application of said commission or of any person or corporation interested. Said commission may also, after public notice and hearing as required by law, grant locations for such additional poles and wires for local distribution from underground wires, cables or conductors as may become reasonably necessary by reason of work done under the provisions of this act, specifying where such poles may be located and the kind of poles to be used.

SECTION 6. When any person, firm or corporation operating or intending to operate wires, cables or conductors in said section of said city shall desire, or be required, to place the same underground in any of the streets, avenues or highways of said section, and for that purpose to remove the same from above the surface thereof, and shall have been duly authorized so to do, it shall be obligatory upon such person, firm or corporation to file with said commission a map or maps made to scale, showing the streets, avenues or other highways which are desired or required to be used for such purpose, and giving the location, dimensions and courses of the underground conduit or conductor which is to be constructed; and said map or maps so filed shall be approved in writing by the city engineer, before a permit shall be issued by the proper authorities to open such streets, avenues or highways for the purposes of this section.

SECTION 7. Said commission, in case of the neglect or refusal of any person, firm or corporation to comply with any requirements made by said commission under authority of this act, may proceed in a summary manner to abate or remove any danger which it deems likely to result from the failure to comply with the said requirements. The commission shall also have power in its discretion, either generally or in particular cases, to extend the time prescribed for carrying out any of the work prescribed by this act, but the time for the completion of the work shall not be extended beyond January first, nineteen hundred and twenty-two, without the approval of the mayor and board of aldermen.

SECTION 8. All persons, firms or corporations owning or operating electrical wires, cables or conductors in said city shall on or

before September first in the year nineteen hundred and eleven, file with the said commission a statement of the number and general location of all their electrical conduits, wires, cables and conductors, poles and structures within the streets, ways, and public places named in section two of this act.

SECTION 9. This act shall not apply to railway trolley, guard or span wires, or poles or structures used exclusively for the support thereof, or to posts for the support of lamps exclusively, or to poles used exclusively for local distribution from underground wires, cables, or conductors, or to long distance telephone wires; nor shall it revoke any rights already granted to any person, firm or corporation to place or maintain any conduits, pipes, wires or cables or conductors underground, but all such conduits, pipes, wires, cables or conductors laid hereafter in pursuance of any such grant shall be laid subject to the provisions of this act not inconsistent with the terms of said grant. For the purposes of this act no wire shall be deemed a long distance telephone wire which does not extend twenty-five miles at least in a direct line from the central telephone office of said city.

SECTION 10. The city council of said city may make such ordinances not inconsistent with the provisions of this act as may be necessary or expedient to carry into effect the purpose of this act.

SECTION 11. The mayor and aldermen of said city shall constitute a board of appeal, to which petitions in writing may be presented by any person, firm or corporation aggrieved by any act or decision of said commission done or made in pursuance of this act. Such petition shall set forth the specific grievance or grievances relied upon, and shall be filed with the city clerk within ten days after the act or decision alleged to cause the grievance, and said board, upon giving due public notice to all parties interested, shall give a hearing thereon and may either approve or revoke or modify such act or decision.

SECTION 12. The supreme judicial court, or any justice thereof, and the superior court and any justice thereof, shall, on petition of said commission, have jurisdiction in equity to enforce the provisions of this act, or any order of the commission issued under authority thereof, and to compel compliance therewith.

SECTION 13. This act shall take effect upon its passage. [*Approved April 10, 1911.*]

CHAPTER 293.

An Act relative to the Annual Report of the Board of Gas and Electric Light Commissioners.

Be it enacted, etc., as follows:

Section seven of chapter one hundred and twenty-one of the Revised Laws is hereby amended by inserting after the word "expedient", in the seventh and eighth lines, the words:— but including the names and addresses of the principal officers and of the directors,— so as to read as follows:— *Section 7.* The board shall annually, on or before the first Wednesday in January, transmit to the secretary of the commonwealth a report to the general court of its doings, with such suggestions as to the condition of affairs or conduct of corporations and companies which are engaged in the manufacture and sale of gas or electricity for light or heat as may be appropriate, with such abstracts of the returns required by section thirty-one as it considers expedient, but including the names and addresses of the principal officers and of the directors, and an abstract of the accidents reported to it under the provisions of section thirty-nine. [*Approved April 15, 1911.*

CHAPTER 325.

An Act to provide for the Giving of Bonds in Blasting Operations.

Be it enacted, etc., as follows:

SECTION 1. Before the issue of a permit to use an explosive in the blasting of rock or any other substance as prescribed by the detective and fire inspection department of the district police, the applicant for the permit shall file with the clerk of the city or town in which the blasting is to be done, a bond running to the city or town with a surety or sureties approved by the treasurer thereof, for such penal sum not exceeding ten thousand dollars as the chief of the district police or the official granting the permit shall determine to be necessary in order to cover the risk or damage that might ensue from the blasting. The bond shall be conditioned upon the payment of any loss, damage or injury resulting to persons or property by reason of the use or keeping of said explosive.

SECTION 2. Action on a bond filed under the provisions of this act may be brought by any persons to whom loss, damage or injury has resulted by reason of the use or keeping of said explosive, and shall be brought in the names of and for the use and at the cost

and expense of such persons, but in no event shall action be brought on the bond for injury to the person of an employee of the person receiving the permit. If claims on any bond are established to an amount greater than the penal sum thereof, such claims shall be paid pro rata to the amount of the penal sum, and executions shall issue accordingly.

SECTION 3. This act shall take effect upon its passage. [*Approved April 24, 1911.*]

CHAPTER 338.

An Act relative to Retirement Systems for the Payment of Annuities and Pensions to Employees of Cities and Towns.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter six hundred and nineteen of the acts of the year nineteen hundred and ten is hereby amended by inserting after the paragraph marked (e) the following paragraph:— (f) The word “employees” means only regular and permanent employees whose only or principal employment is in the service of the city or town,— and by striking out the letter “(f)”, in the seventeenth line, and inserting in place thereof the letter:— (g),— so as to read as follows:— *Section 1.* In this act, unless the context otherwise requires:—

(a) The words “city council” mean the legislative branch of the city government, whether consisting of one chamber or two.

(b) The words “retirement system” mean the arrangements provided in this act for the payment of annuities and pensions.

(c) The word “annuities” means the payments for life derived from money contributed by the employees.

(d) The word “pensions” means the payments for life derived from money contributed by the city or town.

(e) The words “regular interest” mean interest at three per cent per annum compounded semi-annually on the last days of January and July, and reckoned for full three and six months periods only.

(f) The word “employees” means only regular and permanent employees whose only or principal employment is in the service of the city or town.

(g) The words “continuous service” mean uninterrupted employment, with this exception: a lay-off on account of illness or reduction of force; and a leave of absence, suspension or dismissal followed by reinstatement within one year, shall not be considered as breaking the continuity of service.

SECTION 2. Section two of said chapter six hundred and nineteen is hereby amended by inserting before the words "be accepted", in the twelfth line, the words:— as amended,— so as to read as follows:— ESTABLISHMENT OF RETIREMENT SYSTEM. *Section 2.* Any city or town in this commonwealth may establish a retirement system for its employees by accepting the provisions of this act in the following manner: In the case of a city, whenever a vote to accept the provisions of this act shall have duly been passed by the city council, the question of acceptance shall then be submitted to the voters of the city at the next municipal election. The vote shall be in answer to the question, placed upon the ballot: "Shall an act passed by the general court in the year nineteen hundred and ten, entitled 'An act authorizing the cities and towns of the commonwealth to establish retirement systems for their employees', as amended, be accepted?" In the case of a town, whenever a vote to accept the provisions of the act shall have duly been passed by the board of selectmen, the question of acceptance shall then be submitted to the voters of the town at the next town meeting. If a majority of the voters voting on the question at the city election or at the town meeting shall vote in the affirmative, this act shall take effect in such city or town as hereinafter provided.

A copy of the vote of the city council or of the board of selectmen, certified by the city clerk or by the town clerk, and a copy of the vote at the city election or at the town meeting, sworn to by the local election commissioners or the officers corresponding thereto, shall, within thirty days respectively after the date of the latter vote, be filed in the office of the insurance commissioner. The latter shall forthwith issue a certificate that the retirement system is declared established in said city or town, to become operative on the first day of February or the first day of August following the expiration of three months after the date of such certificate.

SECTION 3. Section three of said chapter six hundred and nineteen is hereby amended by striking out the word "sixty", in the fourth line of paragraph (1), and inserting in place thereof the word:— thirty,— by inserting after the words "board of retirement", in the fourth line of paragraph (4), the words:— upon recommendation of the head of the department in which the member is employed,— by striking out the words "so retire", at the end of paragraph (4), and inserting in place thereof the words:— be retired, irrespective of such recommendation,— and by inserting after the words "board of retirement", in paragraph (5), the words:— upon recommendation of the head of the department

in which the member is employed, — so as to read as follows: —
THE RETIREMENT ASSOCIATION. *Section 3.* Whenever a city or town shall have voted to establish a retirement system under the provisions of section two, a retirement association shall be organized as follows: —

(1) All employees of the city or town, on the date when the retirement system is declared established by the issue of the certificate, as provided in section two, may become members of the association. On the expiration of thirty days from said date every such employee shall be considered to have elected to become, and shall thereby become, a member, unless he shall have, within that period, sent notice in writing to the local election commissioners or the officers corresponding thereto that he does not wish to join the association.

(2) All employees who enter the service of the city or town after the date when the retirement system is declared established by the issue of the certificate, as provided in section two, except persons who have passed the age of fifty-five years, shall upon completing thirty days of service become thereby members of the association. Persons over fifty-five years of age who enter the service of the city or town after the establishment of the retirement system shall not be allowed to become members of the association, and no such employee shall remain in the service of the city or town after reaching the age of seventy years.

(3) No officer elected by popular vote may become a member of the association, nor any employee who is or will be entitled to a pension from the city or town for any reason other than membership in the association.

(4) Any member who reaches the age of sixty years and who has been in the continuous service of the city or town for a period of fifteen years immediately preceding may retire or may be retired by the board of retirement upon recommendation of the head of the department in which the member is employed, and any member who reaches the age of seventy must be retired, irrespective of such recommendation.

(5) Any member who has completed a period of thirty-five years of continuous service may retire, or may be retired at any age by the board of retirement upon recommendation of the head of the department in which the member is employed if such action be deemed advisable for the good of the service.

SECTION 4. Section four of said chapter six hundred and nineteen is hereby amended by striking out the word "thirty," in the

fifth line of paragraph (1), and inserting in place thereof the word: — sixty,— by adding to paragraph (2) the following: — All claims for reimbursement on this account shall be subject to the approval of the city council or the board of selectmen,— by adding to paragraph (4) the words: — subject to the approval of the city council or the board of selectmen,— and by inserting after the words “ under section five, (2) *A*,” in the second and third lines of paragraph (6) *A*, the words: — and (3) ; and by striking out the words “ as defined in section five, (2) *B (b)*,” in the second and third lines of paragraph (6) *G*,— so as to read as follows: — **THE BOARD OF RETIREMENT.** *Section 4.* (1) The management of the retirement system is hereby vested in the board of retirement, consisting of three members, one of whom shall be the city or town treasurer; the second member shall be a member of the association elected by the latter within sixty days after the date when the retirement system is declared established by the issue of the certificate, as provided by section two, in a manner to be determined by the local election commissioners or the officers corresponding thereto; the third member shall be chosen by the other two members. In case of the failure of the latter to choose the third member within thirty days after the election of the second member, the mayor or the chairman of the board of selectmen shall appoint such third member. The first person so chosen or appointed as third member shall serve for two years; otherwise and thereafter the term of office of the two elected members shall be three years. On a vacancy occurring in the board for any cause or on the expiration of the term of office of any member, a successor of the person whose place has become vacant or whose term has expired shall be chosen in the same manner as was his predecessor.

(2) The members of the board of retirement shall serve without compensation: but they shall be reimbursed out of the contingent fund for any expense or loss of salary or wages which they may incur through service on the board. All claims for reimbursement on this account shall be subject to the approval of the city council or the board of selectmen.

(3) The city or town treasurer shall have charge and control of the funds of the system, subject to the approval of the board of retirement, and shall invest and reinvest the same, and may from time to time sell any securities held by him and invest and reinvest the proceeds, and any and all unappropriated income of said funds: *provided, however*, that all funds received by him not required for current disbursements shall be invested in accordance with the pro-

visions of the laws of this commonwealth relating to the investment of the funds of savings banks. He shall in the investment of the funds give preference to the securities of the city or town in which the retirement system has been established. He may, whenever he sells such securities, deliver the securities so sold upon receiving the proceeds, and may execute all documents necessary to transfer the title thereto.

(4) The board of retirement shall have power to make by-laws and regulations not inconsistent with the provisions of this act, and to employ such clerical or other assistance as may be necessary for the fulfillment of its purposes subject to the approval of the city council or the board of selectmen.

(5) The board shall determine the percentage of wages that employees shall contribute to the pension fund, subject to the minimum and maximum percentages, and shall, furthermore, have power to classify employees for the purposes of the retirement system, and to establish different rates of contribution for different classes within the prescribed limits.

(6) The city or town treasurer shall, in February of each year, unless for cause the insurance commissioner shall have granted an extension of time, file in the office of the insurance commissioner a sworn statement, which shall exhibit the financial condition of the retirement system on the thirty-first day of the preceding January, and its financial transactions for the year ending with said day.

Such statement shall be in a form approved by the insurance commissioner, and shall show, among other things, the liability of the retirement system on account of the following items:—

A. Deposit Reserve.

The total of the deposits of the members actually received by the treasurer or due from the city or town under section five, (2) *A*, and (3), and held subject to withdrawal by such members.

B. Interest Reserve.

Regular interest on such deposits.

C. Annuity Reserve.

The net value of the annuities entered upon under section six, (2), *B*, on the basis of the mortality tables and interest rates provided for in this act.

D. Expense and Contingent Funds.

(a) The unexpended portion of the amounts received under section five, (1).

(b) The contingent fund.

E. Gifts and Bequests.

The amounts received as gifts or bequests and held under the terms of such gifts or bequests.

F. Other Liabilities.

All other liabilities.

G. Surplus.

(a) *Annuity surplus.*—The undistributed surplus arising from annuity deposits.

(b) *Other surplus.*—All unassigned funds.

SECTION 5. Section five of the said chapter six hundred and nineteen is hereby amended by striking out paragraph (2) *B (b)* and inserting in place thereof the following paragraph:—*(b)* Every year, in February, in case the actual annuity deposits shall be less than the amount of the annuity reserve, the city or town shall make good such deficiency,—by adding after paragraph *B (d)* the following paragraph:—*(e)* The city or town shall appropriate annually such an amount as may be necessary to defray the contributions to be made by it under paragraph (2) *B (a), (b), (c)* and *(d)* of this section, according to estimates prepared by the treasurer,—and by striking out the word “pension,” in the fifth line of paragraph (3), and inserting in place thereof the word:—retirement,—so as to read as follows:—**CREATION OF THE RETIREMENT FUND.** *Section 5.* The funds of the retirement system shall be raised as follows:—

(1) *Expense and Contingent Fund.*

The city or town shall appropriate annually such an amount as may be necessary to defray the whole expense of administration, according to estimates prepared by the treasurer.

(2) *Annuity and Pension Fund.*

A. Deposits by Members.—Each member shall deposit in this fund from his wages or salary, as often as the same are payable, not less than one per cent and not more than five per cent of the amount

of his wages or salary as determined by the board of retirement under the provisions of section four (5): *provided, however*, that employees who receive more than thirty dollars weekly in wages or salary shall not be assessed for contribution to this fund on the excess above that amount.

B. Contributions by the City or Town. — (a) Every month the city or town shall contribute such amount as the board of retirement may determine to be necessary to pay current pensions for subsequent services, under section six, (2) *C* (a).

(b) Every year, in February, in case the actual annuity deposits shall be less than the amount of the annuity reserve, the city or town shall make good such deficiency.

(c) Every month the city or town shall contribute such amount as the board of retirement may determine to be necessary to pay current pensions for prior service under section six, (2) *C* (b).

(d) Every month the city or town shall contribute such amount as the board of retirement may determine to be necessary to ensure the minimum payments provided for in section six, *E*.

(e) The city or town shall appropriate annually such an amount as may be necessary to defray the contributions to be made by it under paragraph (2) *B* (a), (b), (c) and (d) of this section, according to estimates prepared by the treasurer.

(3) *Provisions for Payments.*

All amounts payable by members of the association under paragraph (2) *A* of this section shall be deducted by the city or town from the amounts payable to them as wages or salary, as often as the same are payable, and shall be credited immediately to the retirement fund by the city or town treasurer.

SECTION 6. Section six of said chapter six hundred and nineteen is hereby amended by striking out paragraph “(1) *Expense and Contingent Funds*”, and inserting in place thereof the following: —

(1) *Expense and Contingent Fund.* The fund provided for under section five, (1), shall be used, so far as may be necessary, for the payment of the expenses of administration. The portions not so used, if any, shall be repaid into the city or town treasury. In case the amount appropriated for the expense and contingent fund in any year should prove insufficient, the city or town shall appropriate in the following year such additional sum as may be required to cover the deficit, — by inserting after the words “thereafter retires”, in the fourth line of paragraph (2) *B*, the following words: — or is retired, — by striking out the words “time when he entered

the service of the city or town", in the tenth and eleventh lines of paragraph (2) *C (b)*, and inserting in place thereof the following words:— beginning of such period of continuous service,— and by striking out the words "employees who had already reached the age of sixty years at the time when the retirement system was established, and employees who had already reached the age of fifty-five years at the date and also became members of the association," in paragraph (2) *C (b)*, and inserting in place thereof the following:—

Any employee who had already reached the age of fifty-five years on the date when the retirement system was established, and also became a member of the association,— by inserting before the paragraph "*D. Application of Surplus*", the following:—

Any employee not a member of the association who had already reached the age of fifty-five years on the date when the retirement system was established, may be retired at any time and shall be paid a pension equivalent to the minimum payment herein provided for,— by inserting after the word "*Minimum*", in the first line of paragraph *E*, the words:— and *Maximum*,— and by adding after the word "*year*", in the third line of said paragraph *E*, the words:— or at a rate more than one half the amount of the average wages or salary received by the member during the ten years prior to his retirement,— so as to read as follows:— *DISTRIBUTION OF FUNDS. Section 6.* The city or town treasurer shall administer the funds of the retirement system in accordance with the following plan:—

(1) *Expenses and Contingent Fund.*

The fund provided for under section five, (1), shall be used, so far as may be necessary, for the payment of the expenses of administration. The portions not so used, if any, shall be repaid into the city or town treasury. In case the amount appropriated for the expense and contingent fund in any year should prove insufficient, the city or town shall appropriate in the following year such additional sum as may be required to cover the deficit.

(2) *Annuity and Pension Funds.*

A. Refunds.— (a) Should a member of the association cease to be an employee of the city or town for any cause other than death before becoming entitled to a pension, there shall be refunded to him all the money that has been paid in by him under section five, (2) *A*, with regular interest.

(b) Should a member of the association die before becoming entitled to a pension, there shall be paid to his legal representatives all the money that has been paid in by him under section five, (2) A, with such interest as shall have been earned on such deposits.

B. Annuities from Employees' Deposits. — Every member who reaches the age of sixty years and has been in the continuous service of the city or town for fifteen years immediately preceding, and then or thereafter retires or is retired, every member who retires or is retired at the age of seventy years, and every member who is retired for the good of the service under the provisions of section three, (5), shall receive an annuity to which the sum of his deposits under section five, (2), with regular interest, shall entitle him, according to the tables adopted by the board of retirement, in one of the following forms: —

(a) A life annuity, payable monthly.

(b) A life annuity, payable monthly, with the provision that in the event of the death of the annuitant before receiving payments equal to the sum at the date of his retirement of his deposits under section five, (2) A, with regular interest, the difference shall be paid to his legal representatives.

C. Pensions derived from Contributions by the City or Town. —

(a) Pensions based upon subsequent service. Any member entitled to an annuity under paragraph (2) B, of this section, shall receive in addition thereto a pension for life payable monthly equivalent to that annuity, to be paid out of the fund contributed by the city or town under the provisions of section five, (2) B (a).

(b) Pensions based upon prior service. Any member of the association who reaches the age of sixty years, having been in the continuous service of the city or town for fifteen years or more immediately preceding, and then or thereafter retires or is retired, shall receive in addition to the annuity and pension provided for by paragraphs (2) B and C (a) of this section, an extra pension for life as large as the amount of the annuity to which he might have acquired a claim if the retirement system had been in operation at the beginning of such period of continuous service, and if accordingly he had paid regular contributions from that date to the date of the establishment of the retirement association, at the same rate as that first adopted by the board of retirement, and if such deductions had been accumulated with regular interest.

Any employee who had already reached the age of fifty-five years on the date when the retirement system was established, and also became a member of the association, may be retired under the pro-

visions of the preceding paragraph without having completed the otherwise required service period of fifteen years.

For the purpose of computing any pension payable for prior service, the board of retirement may estimate on a basis determined by them the wages received at any period for which they may deem it impracticable to consult the original records.

Any employee not a member of the association who had already reached the age of fifty-five years on the date when the retirement system was established, may be retired at any time and shall be paid a pension equivalent to the minimum payment herein provided for.

D. Application of Surplus. — The board of retirement shall have the power to determine the application of any surplus, as defined under section four, (6) *G*, subject to the approval of the insurance commissioner.

E. Minimum and Maximum Payments. — In no case shall the total monthly payment to a member be at a rate less than two hundred dollars per year, or at a rate more than one half the amount of the average wages or salary received by the member during the ten years prior to his retirement.

F. Association Membership and Pension Certificate. — Membership in the association shall be evidenced by a certificate to be issued to each member by the board of retirement, and the right to an annuity or a pension shall be evidenced by a policy to be issued to each member who retires or is retired by the board of retirement.

SECTION 7. The said chapter six hundred and nineteen is hereby amended by inserting after section ten the following new section: — *Section 11.* This act may be altered or amended from time to time, and all such alterations and amendments shall, upon their passage, become binding upon cities and towns which have previously accepted this act, and all contractual rights entered into by and between any city or town and the employees thereof under the provisions of this act shall be deemed to have been entered into subject to being subsequently affected by such alterations or amendments: *provided, however,* that no such alteration or amendment shall affect the rights of employees given by section six, (2) *A*, of this act with reference to deposits previously made.

SECTION 8. This act shall take effect upon its passage.

(*The foregoing was laid before the Governor on the seventeenth day of April, 1911, and after five days it had "the force of a law", as prescribed by the Constitution, as it was not returned by him with his objections thereto within that time.*)

CHAPTER 348.

An Act relative to Inspection of Electric Meters.

Be it enacted, etc., as follows:

SECTION 1. Section thirty-six of chapter one hundred and twenty-one of the Revised Laws is hereby amended by striking out the words "if any", in the sixth line, — so as to read as follows: — *Section 36.* A customer of an electric lighting company or such company may apply to the board of gas and electric light commissioners for an examination and test of any meter in use upon a customer's premises. The board shall forthwith cause to be made by a competent and disinterested person such examination and test of said meter as in the judgment of the board is practicable and reasonable, and shall furnish to the company and to the customer a certificate of the result and expense thereof. If upon such examination it appears that the meter does not register correctly, the board may order the company to correct or remove such meter and to substitute a correct meter therefor. All fees for examinations and tests shall in the first instance be paid by the person or company making application therefor; but if the examination or test is made at the request of a customer and the meter is found to be incorrect because too fast the company shall pay such fees to the board, to be repaid by it to the applicant. A meter shall be deemed correct for the purposes of this section if it appears from such examination or test that it does not vary more than five per cent from the standard approved by the board.

SECTION 2. This act shall take effect upon its passage. [*Approved April 27, 1911.*]

CHAPTER 349.

An Act relative to Electric Light, Heat and Power Companies.

Be it enacted, etc., as follows:

SECTION 1. A corporation engaged in the business of manufacturing or selling electricity for light, heat or power shall not, without the authority of the general court, transfer its franchise, lease its works or contract with any person, association or corporation to carry on its works, except in accordance with the provisions of chapter five hundred and twenty-nine of the acts of the year nineteen hundred and eight and acts in amendment thereof and in addition thereto.

SECTION 2. This act shall take effect upon its passage. [*Approved April 27, 1911.*]

CHAPTER 350.

An Act relative to the Payment of Indebtedness of Cities and Towns.

Be it enacted, etc., as follows:

SECTION 1. Section thirteen of chapter twenty-seven of the Revised Laws, as amended by chapter three hundred and forty-one of the acts of the year nineteen hundred and eight, is hereby further amended by inserting after the word "debt", in the sixth line, the words:— so far as issued,— so as to read as follows:— *Section 13.* A city or town, instead of establishing a sinking fund, may vote to provide for the payment of any debt by such proportionate or other annual payments as will extinguish the same at maturity, but so that the amount of such annual payments in any year and the whole interest of such debt, so far as issued, payable in the same year shall not together be less than the aggregate amount of principal and interest payable in any subsequent year, and thereupon such annual amount shall, without further vote, be assessed under the provisions of section thirty-seven of chapter twelve until such debt is extinguished.

SECTION 2. This act shall take effect upon its passage. [*Approved April 27, 1911.*]

CHAPTER 363.

An Act to dissolve Certain Corporations.

Be it enacted, etc., as follows:

SECTION 1. Such of the following-named corporations as are not already legally dissolved, are hereby dissolved, subject to the provisions of sections fifty-two and fifty-three of chapter four hundred and thirty-seven of the acts of the year nineteen hundred and three:¹—

Bay State Gas Company.

Boston Gas Light Company.

Brookline Gas Light Company.

Consolidated Gas Incandescent Light Company.

Consumers Gas Company of Boston.

Dorchester Gas Light Company.

Everett Gas Company.

Hanson Gas and Electric Company.

Jamaica Plain Gas Light Company.

¹ This act names 878 corporations, but only gas or electric companies are mentioned here.

Massachusetts Pipe Line Gas Company.
Millbury Electric Company.
Nantucket Gas and Electric Company.
Norwood Light and Power Company.
Old Colony Light Company, The.
Quincy Gas Light Company.
Roxbury Gas Light Company.
South Boston Gas Light Company.
Suburban Light and Power Company.
Suffolk Lighting Company.
Warren & Brookfield Electric Light Company.
Woodville Electric Light Company.
Worcester South Electric Companies.

SECTION 2. Nothing in this act shall be construed to affect any suit now pending by or against any corporation mentioned in the first section of this act, nor any suit now pending or hereafter brought for any liability now existing against the stockholders or officers thereof, nor to revive any charter or corporation previously dissolved or annulled, nor to make valid any defective organization of any of the supposed corporations mentioned in said first section.

SECTION 3. Suits upon choses in actions arising out of contracts sold or assigned by any corporation dissolved by this act may be brought or prosecuted in the name of the purchaser or assignee. The fact of sale or assignment and of purchase by the plaintiff shall be set forth in the writ or other process; and the defendant may avail himself of any matter of defence of which he might have availed himself in a suit upon the claim by the corporation, had it not been dissolved by this act.

SECTION 4. This act shall take effect upon its passage. [*Approved April 29, 1911.*]

CHAPTER 364.

An Act to provide for Removing or Placing under Ground Certain Wires and Electrical Appliances in the City of Boston.

Be it enacted, etc., as follows:

SECTION 1. In the month of January in the year nineteen hundred and twelve and in the month of January in each year thereafter to and including the year nineteen hundred and sixteen, the commissioner of wires in the city of Boston shall prescribe and give public notice thereof, as required by section two of chapter four

hundred and fifty-four of the acts of the year eighteen hundred and ninety-four, not more than three miles of main streets, avenues or highways, or parts thereof, in said city outside of the sections of the city already prescribed under the authority of said chapter four hundred and fifty-four and of chapter two hundred and forty-nine of the acts of the year eighteen hundred and ninety-eight; and prior to March first in each year from nineteen hundred and twelve to nineteen hundred and sixteen, both inclusive, said commissioner shall prescribe, and give public notice thereof, as aforesaid, not more than two miles of side streets, avenues or highways, or parts thereof, in said city outside of the sections of the city already prescribed as aforesaid, within which streets, avenues or highways, or parts thereof, all wires, cables and conductors, except feed and return wires of street railways placed or carried in or upon subways, tunnels or elevated structures, and except such other wires as are also excepted in said chapter four hundred and fifty-four, shall during that calendar year be removed or placed under ground; and said commissioner of wires shall cause the owners or users of such wires, cables and conductors to remove or place them under ground, and also to remove any poles or structures in such prescribed parts of said streets, avenues or highways used to support such wires, cables or conductors, except posts used exclusively for the support of fire alarm and police signal boxes, and such poles or posts as are also excepted in said chapter four hundred and fifty-four, and except when, in the judgment of said commissioner, it is impracticable or inexpedient to remove such wires, cables, conductors, poles or structures.

SECTION 2. By main streets, avenues or highways in section one are meant streets, avenues or highways upon which main or trunk lines of poles, wires, cables and conductors are located; and by side streets, avenues or highways in said section are meant streets which cross or run into such main streets, avenues or highways, and upon which main or trunk lines or poles, wires, cables and conductors are not located. No side streets shall be prescribed except in connection with the main street which they cross or run into as aforesaid, and not more than one half mile of any such side street shall be prescribed in any year.

SECTION 3. Section one of chapter three hundred and forty-seven of the acts of the year nineteen hundred and eight is hereby repealed, the repeal to take effect on December thirty-first, nineteen hundred and eleven, but all the terms, conditions, provisions, requirements, powers, restrictions and exemptions of said chapter and

of the other acts mentioned in section one thereof, not inconsistent herewith are hereby extended to and made a part of this act.

SECTION 4. The purpose of this act is to cause the removal, prior to January first, nineteen hundred and seventeen, of certain wires, cables, conductors and poles or structures from twenty-five miles of streets in addition to the streets heretofore prescribed under section one of chapter three hundred and forty-seven of the acts of the year nineteen hundred and eight and prior acts mentioned therein.

SECTION 5. Except as otherwise provided herein this act shall take effect on January first, nineteen hundred and twelve. [*Approved April 29, 1911.*]

CHAPTER 371.

An Act relative to the Transmission of High Tension Currents of Electricity in the City of Boston.

Be it enacted, etc., as follows:

SECTION 1. No wires for the transmission of electricity at more than five thousand volts alternating, or ten thousand volts direct, shall, after the thirtieth day of June, nineteen hundred and thirteen, be placed, maintained or operated in the city of Boston except underground.

SECTION 2. The provisions of this act may be enforced as provided in section nineteen of chapter one hundred and twenty-two of the Revised Laws, and it shall be the duty of the commissioner of wires of the city of Boston to see to such enforcement. [*Approved April 29, 1911.*]

CHAPTER 379.

An Act relative to the Returns to be made to the Tax Commissioner by Corporations.

Be it enacted, etc., as follows:

SECTION 1. Section forty of Part III of chapter four hundred and ninety of the acts of the year nineteen hundred and nine is hereby amended by striking out the word "May", wherever it occurs in said section, and inserting in place thereof the word:— April. Said section is hereby further amended by striking out the paragraph marked "Second," and inserting in place thereof the following paragraph:—

Second, A statement in such detail as the tax commissioner may require of the works, structures, real estate, machinery, underground conduits, wires and pipes, and of the merchandise and other assets belonging to the corporation, with the value thereof, and of

the liabilities of the corporation; and in the case of domestic business corporations a statement of such assets as are without the commonwealth. Except in the case of domestic business corporations the returns required by this section shall also contain, in a form prescribed by the tax commissioner, a statement of the profit or loss which has resulted from the business of the corporation for the twelve months ending with the thirty-first day of December next preceding the year in which the return is made.

Said section is further amended by striking out the last sentence and inserting in place thereof the following:—

Such return shall be filed with the tax commissioner. In the case of domestic business corporations the whole of said return, and in the case of other corporations so much of said return as relates to the profit or loss which has resulted from the business of the corporation shall be open only to the inspection of the tax commissioner, his deputy, clerks and assistants, and such other officers of the commonwealth as may have occasion to inspect it for the purpose of assessing or collecting taxes.

SECTION 2. This act shall take effect upon its passage. [*Approved May 1, 1911.*]

CHAPTER 402.

An Act relative to the Blasting of Rocks in the City of Boston.

Be it enacted, etc., as follows:

SECTION 1. Chapter two hundred and one of the acts of the year eighteen hundred and sixty-eight, relative to the blasting of rocks in the city of Boston, is hereby repealed.

SECTION 2. This act shall take effect upon its passage. [*Approved May 5, 1911.*]

CHAPTER 422.

An Act relative to Certain Political Advertisements.

Be it enacted, etc., as follows:

SECTION 1. Section three of chapter five hundred and eighty-one of the acts of the year nineteen hundred and seven is hereby amended by adding at the end thereof the words:— *provided, however*, that this section shall not be construed to prevent the bona fide publication or circulation by such a corporation, or such trustee, or trustees, of paid matter when under a referendum or question submitted to the voters, the taking, purchasing or acquiring

of any of the property, business or assets of the corporation is involved, provided that the name of the corporation appears therein in the nature of a signature, and that, if inserted as reading matter, such matter is preceded or followed by the word "advertisement" in the manner required by section one, — so as to read as follows: — *Section 3.* No corporation carrying on the business of a bank, trust, surety, indemnity, safe deposit, insurance, railroad, street railway, telegraph, telephone, gas, electric light, heat, power, canal, aqueduct, or water company, or any company having the right to take or condemn land or to exercise franchises in public ways granted by the commonwealth or by any county, city or town, and no trustee or trustees owning or holding the majority of the stock of such a corporation, shall pay or contribute in order to aid, promote, or prevent the nomination or election of any person to public office, or in order to aid, promote or antagonize the interests of any political party, or to influence or affect the vote on any question submitted to the voters. No person shall solicit or receive such payment or contribution from such corporation or such holders of stock: *provided, however,* that this section shall not be construed to prevent the bona fide publication or circulation by such a corporation, or such trustee or trustees, of paid matter when under a referendum or question submitted to the voters, the taking, purchasing or acquiring of any of the property, business or assets of the corporation is involved, provided that the name of the corporation appears therein in the nature of a signature, and that, if inserted as reading matter, such matter is preceded or followed by the word "advertisement" in the manner required by section one.

SECTION 2. This act shall take effect upon its passage. [*Approved May 9, 1911.*]

CHAPTER 428.

An Act to prohibit the Making or Publishing of False or Exaggerated Statements concerning the Affairs of Corporations, Joint-stock Associations, Partnerships or Individuals.

Be it enacted, etc., as follows:

SECTION 1. Any person who wilfully and with intent to defraud makes or publishes, or causes to be made or published in any way whatever, or permits to be so made or published, any book, prospectus, notice, report, statement, exhibit, advertisement or other publication of or concerning the affairs, financial condition, property or assets of any corporation, joint-stock association, partnership or individual, which said book, prospectus, notice, report,

statement, exhibit, advertisement or other publication contains any statement which is false or wilfully exaggerated and which shall have a tendency to give a less or greater apparent value to the shares, bonds, property or assets of such corporation, joint-stock association, partnership or individual, on any part of said shares, bonds, property or assets, than said shares, bonds, property or assets or any part thereof shall really and in fact possess, shall be punished by a fine of not more than five thousand dollars, or by imprisonment for not more than ten years, or by both such fine and imprisonment.

SECTION 2. Chapter three hundred and eighty-three of the acts of the year nineteen hundred and seven is hereby repealed. [*Approved May 11, 1911.*]

CHAPTER 434.

An Act relative to the Responsibility for Loss by Fire of Money deposited in Cash-recording Gas, Electric Lighting and Power Meters.

Be it enacted, etc., as follows:

All gas and electric lighting and power companies using cash-recording meters shall be responsible for the loss by fire of any money deposited in said meters. [*Approved May 13, 1911.*]

CHAPTER 442.

An Act relative to Pole and Wire Locations of Street Railway Companies.

Be it enacted, etc., as follows:

SECTION 1. A street railway company may, for all purposes necessary or reasonably incident to the construction, maintenance or operation of its railway, generate, manufacture, use and transmit electricity in any city or town in which it may be authorized to operate its railway, and for that purpose may erect and maintain, as a part of its railway, and subject to the provisions of sections seven, sixty-four, sixty-five and sixty-six, respectively, of Part III of chapter four hundred and sixty-three of the acts of the year nineteen hundred and six, relative to the grant and revocation of authority therefor, poles and trolley, feed and stay wires, and other proper devices for, or used in connection with, the transmission of electricity, of such materials and workmanship as may be prescribed in the grant of authority therefor, in, over and under any streets, highways and bridges in any such city or town: *provided*, that authority to erect and maintain the same has been, or

shall hereafter be, granted by the board of aldermen of the city or selectmen of the town, respectively; and may also erect and maintain such poles, wires and other devices upon and over any private land, with the consent of the owners thereof.

SECTION 2. This act shall take effect upon its passage. [*Approved May 13, 1911.*]

CHAPTER 481.

An Act to confirm the Locations of Electric Lines.

Be it enacted, etc., as follows:

SECTION 1. All locations for poles, piers, abutments, conduits and other fixtures necessary to sustain or protect the wires of the lines of any of the companies designated in section one of chapter one hundred and twenty-two of the Revised Laws, and of any unincorporated owners and associations subject to the provisions of said chapter, heretofore granted by, or under the authority of, the mayor and aldermen of a city or the selectmen of a town and now in actual use by the respective companies, owners or associations to which the same were granted, or their legal successors or assigns, and all alterations of such locations, shall upon compliance with the provisions of section two of this act be ratified and confirmed subject to all lawful terms, obligations, restrictions, limitations, regulations and conditions set forth in said grants and to all laws now or hereafter in force applicable thereto. Nothing herein contained and no act done hereunder shall be held to make lawful any of the structures hereinbefore named for which an express grant of location has not been made by, or under the authority of, the mayor and aldermen or selectmen, as the case may be, and which has not been erected, constructed and maintained in accordance with the requirements of such grant.

SECTION 2. Any company, owner or association desiring to avail itself of the provisions of this act shall, on or before the first day of January, nineteen hundred and thirteen, file with the city or town clerk, as the case may be, to be recorded and kept with the records of original locations for poles and wires, a map or maps showing in detail the location and nature of the structures alleged to be within the provisions of section one, together with a memorandum of the respective dates of the several grants of locations therefor.

SECTION 3. This act shall take effect upon its passage. [*Approved May 26, 1911.*]

CHAPTER 488.

An Act relative to Stockholders' and Directors' Liability.

Be it enacted, etc., as follows:

SECTION 1. Section thirty-four of chapter four hundred and thirty-seven of the acts of the year nineteen hundred and three is hereby amended by inserting after the word "know", in the eighth line, the words: — or on reasonable examination could have known, — so as to read as follows: — *Section 34.* The president, treasurer and directors of every corporation shall be jointly and severally liable for all the debts and contracts of the corporation contracted or entered into while they are officers thereof if any stock is issued in violation of the provisions of section fourteen, or if any statement or report which is required by the provisions of this act is made by them which is false in any material representation and which they know, or on reasonable examination could have known, to be false; but only the officers who sign such statement or report shall be so liable.

SECTION 2. Section thirty-six of said chapter is hereby amended by striking out all after the word "bankrupt", in the third line, to and including the word "fees", in the sixth line, and inserting in place thereof the words: — or unless before a suit to enforce the liability described in sections thirty-four and thirty-five against the president, treasurer or directors of such corporation, is brought by a creditor of said corporation, a demand in writing by or on behalf of the creditor upon such corporation for the payment of his claim has been made, and said corporation has for ten days thereafter neglected to pay it, — by striking out the words "and the execution has been returned unsatisfied", in the ninth line, — by striking out the words "the execution has been so returned", in the tenth and eleventh lines, and in the twentieth and twenty-first lines, respectively, and inserting in the place thereof, in each instance, the words: — the said demand and neglect to pay the claim or to exhibit property which may be taken on execution sufficient to satisfy the same, — and by striking out the words "or the judgment and proceedings thereon", in the thirtieth and thirty-first lines, — so as to read as follows: — *Section 36.* A stockholder or officer in a corporation shall not be held liable for its debts or contracts unless it has been duly adjudicated bankrupt, or unless before a suit to enforce the liability described in sections thirty-four and thirty-five against the president, treasurer or directors of such corporation, is brought by a creditor of said corporation, a demand in

writing by or on behalf of the creditor upon such corporation for the payment of his claim has been made, and said corporation has for ten days thereafter neglected to pay it, or to exhibit to the officer real or personal property belonging to it and subject to be taken on execution, sufficient to satisfy the same.

After such adjudication of bankruptcy, or after the said demand and neglect to pay the claim or to exhibit property which may be taken on execution sufficient to satisfy the same, the clerk or other officer who has charge of the records of such corporation, upon request of a creditor of the corporation or of his attorney, shall furnish to him a certified list of the names of all persons who were officers and stockholders in such corporation at the time when the liability to be enforced against them personally accrued. The supreme judicial court or the superior court shall have jurisdiction in equity to compel such list to be furnished. After an adjudication of bankruptcy or after the said demand and neglect to pay the claim or to exhibit property which may be taken on execution sufficient to satisfy the same, any creditor may file a bill in equity in the supreme judicial court or the superior court in behalf of himself and of all other creditors of the corporation, against it and all persons who are liable to the plaintiff as stockholders or officers for the recovery of the money due from the corporation to himself and to the other creditors for which the stockholders or officers may be personally liable by reason of any act or omission on the part of the corporation or any of the other defendants, setting forth the bankruptcy of the corporation, and the grounds upon which it is expected to charge the stockholders or officers personally.

SECTION 3. Section thirty-nine of said chapter four hundred and thirty-seven is hereby repealed.

SECTION 4. This act shall take effect upon its passage. [*Approved May 27, 1911.*]

CHAPTER 493.

An Act to establish a Board of Appeal for Fire Insurance Rates.

Be it enacted, etc., as follows:

SECTION 1. The governor, with the advice and consent of the council, shall appoint for a term of three years each two persons who shall be citizens of this commonwealth and who, with the insurance commissioner or some person whom he may appoint as special deputy for that purpose, shall constitute a board of appeal for fire insurance rates. The insurance commissioner or his special deputy shall be chairman of the board. An office and a room for

hearings shall be provided by the commonwealth, when they are deemed necessary by the governor and council, and the board may employ a stenographer and shall have power to compel the attendance of witnesses and the production of books and documents.

SECTION 2. Any person, firm or corporation aggrieved by any rating of a fire insurance company or board may file a complaint with the insurance commissioner, who shall notify the board above provided for. The complaint shall be in writing and shall state in detail the grounds upon which the complainant asks relief. The said board shall notify in writing all parties whom it deems to be interested, and shall set a time, not earlier than seven days after the date of the notice, and a place for a hearing upon the complaint. After due hearing the board shall make a finding as to whether the established rate is excessive, unfair or discriminatory and shall make such recommendations as it deems advisable. The finding and recommendation in each case shall be made a matter of record and shall be open to public inspection.

SECTION 3. The compensation of the two appointees of the governor and a special deputy, if appointed, shall be severally ten dollars a day for each day or fraction thereof actually employed in the service, but the insurance commissioner shall receive no extra compensation for service on the board. The necessary expenses of the board in carrying out the provisions of this act shall be borne by the commonwealth.

SECTION 4. This act shall take effect upon its passage. [*Approved May 27, 1911.*]

CHAPTER 494.

An Act to constitute Eight Hours a Day's Work for Public Employees.

Be it enacted, etc., as follows:

SECTION 1. The service of all laborers, workmen and mechanics now or hereafter employed by the commonwealth or by any county therein or by any city or town which has accepted the provisions of section twenty of chapter one hundred and six of the Revised Laws, or of section forty-two of chapter five hundred and fourteen of the acts of the year nineteen hundred and nine, or by any contractor or sub-contractor for or upon any public works of the commonwealth or of any county therein or of any such city or town, is hereby restricted to eight hours in any one calendar day, and it shall be unlawful for any officer of the commonwealth or of any county therein, or of any such city or town, or for any such contractor or sub-contractor or other person whose duty it shall be to

employ, direct or control the service of such laborers, workmen or mechanics to require or permit any such laborer, workman or mechanic to work more than eight hours in any one calendar day, except in cases of extraordinary emergency. Danger to property, life, public safety or public health only shall be considered cases of extraordinary emergency within the meaning of this section. In cases where a Saturday half holiday is given the hours of labor upon the other working days of the week may be increased sufficiently to make a total of forty-eight hours for the week's work. Threat of loss of employment or to obstruct or prevent the obtaining of employment or to refrain from employing in the future, shall each be considered to be "requiring" within the meaning of this section. Engineers shall be regarded as mechanics within the meaning of this act.

SECTION 2. Every contract, excluding contracts for the purchase of material or supplies, to which the commonwealth or any county therein or any city or town which has accepted the provisions of section twenty of chapter one hundred and six of the Revised Laws, is a party which may involve the employment of laborers, workmen or mechanics shall contain a stipulation that no laborer, workman or mechanic working within this commonwealth, in the employ of the contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by the contractor shall be requested or required to work more than eight hours in any one calendar day, and every such contract which does not contain this stipulation shall be null and void.

SECTION 3. Any agent or official of the commonwealth or of any county therein or of any city or town or any contractor or sub-contractor or any agent or person acting on behalf of any contractor or sub-contractor who violates any provision of this act shall be punished by a fine not exceeding one thousand dollars or by imprisonment for six months or both such fine and imprisonment for each offence.

SECTION 4. This act shall not apply to the preparation, printing, shipment and delivery of ballots to be used at a caucus, primary, state, city, or town election, nor during the sessions of the general court to persons employed in legislative printing or binding; nor shall it apply at any time to persons employed in any state, county or municipal institution, on a farm, or in the care of the grounds, in the stable, in the domestic or kitchen and dining-room service or in store rooms and offices.

SECTION 5. All acts and parts of acts inconsistent herewith are hereby repealed. [*Approved May 27, 1911.*]

CHAPTER 509.

An Act relative to the Transmission of Electricity.

Be it enacted, etc., as follows:

SECTION 1. Chapter one hundred and twenty-two of the Revised Laws is hereby amended by striking out section one and inserting in place thereof the following:—*Section 1.* A company which is incorporated for the transmission of intelligence by electricity or by telephone, whether by electricity or otherwise, or for the transmission of electricity for lighting, heating or power, or for the construction and operation of a street railway or an electric railroad, may, under the provisions of the following sections, construct lines for such transmission upon, along, under and across the public ways and across and under any waters within the commonwealth, by the erection or construction of the poles, piers abutments, conduits and other fixtures, except bridges, which may be necessary to sustain or protect the wires of its lines; but such company shall not incommode the public use of public ways or endanger or interrupt navigation.

SECTION 2. Section two of chapter one hundred and twenty-two of the Revised Laws, as amended by chapter two hundred and thirty-seven of the acts of the year nineteen hundred and three, and by chapter one hundred and seventeen of the acts of the year nineteen hundred and six, is hereby further amended by striking out said section and inserting in place thereof the following:—*Section 2.* A company desiring to construct a line for such transmission upon, along, under or across a public way shall in writing petition the mayor and aldermen of the city or the selectmen of the town in which it is proposed to construct such line for permission to erect or construct upon, along, under or across said way the wires, poles, piers, abutments or conduits necessary therefor. A public hearing shall be held on the petition, and written notice of the time and place of the hearing shall be mailed at least seven days prior thereto by the clerk of the city or by the selectmen of the town to all owners of real estate abutting upon that part of the way upon, along, across or under which the line is to be constructed, as such ownership is determined by the last preceding assessment for taxation. After a public hearing as aforesaid, the mayor and aldermen, or the selectmen may by order grant to the petitioner a location for such line, specifying therein where the poles, piers, abutments or conduits may be placed, and in respect to overhead lines may also specify the kind of poles, piers or abutments which

may be used, the number of wires or cables which may be attached thereto, and the height to which the wires or cables may run.

After the erection or construction of such line the mayor and aldermen or selectmen may, after giving the company or its agents an opportunity to be heard, or upon petition of the company without notice or hearing, by order permit an increase in the number of the wires or cables, and direct an alteration in the location of the poles, piers, abutments or conduits or in the height of the wires or cables. The mayor and aldermen or selectmen may, upon petition in writing by two or more companies subject to the provisions of this chapter, without notice or hearing, by order authorize any such company to attach its wires and fixtures to existing poles, piers or abutments of either or any of the other petitioners, or to maintain its wires or cables in the conduits of either or any of said other petitioners. The mayor and aldermen or selectmen may, upon petition in writing by two or more companies subject to the provisions of this chapter, and after notice to abutting landowners and a hearing as hereinbefore provided, by order grant to said companies joint or identical locations for the erection or construction of poles, piers, abutments or conduits to be owned and used in common by them. No order of the mayor and aldermen or selectmen shall be required for renewing, repairing or replacing wires, cables, poles, piers, abutments, conduits, or fixtures once erected or constructed under the provisions of law, or for making house connections or connections between duly located conduits and distributing poles.

The order granting a location or an alteration thereof, or authorizing an increase in the number of wires or cables or attachments, such as are hereinbefore described, shall be recorded by the clerk of the city or of the town in books kept exclusively for the purpose, and where notice has been given as hereinbefore provided the clerk of the city or the chairman or a majority of the selectmen shall certify on said record that the order was adopted after due notice and a public hearing as hereinbefore prescribed, and no such order shall be valid without such certificate. The company or companies in whose favor the order is made shall pay for such record the same fees as are allowed for the entering and recording of deeds by registers of deeds and shall be entitled to attested copies of said orders and certificates upon payment of the same fees as are allowed to registers of deeds for copies.

The mayor and aldermen or selectmen may under the provisions of this section authorize the attachment of the wires and fixtures

of a street railway or electric railroad company to the poles, piers and abutments of another owner, or the attachment of the wires and fixtures of another owner to the poles, piers and abutments of such company, and may grant joint or identical locations for the erection or construction of poles, piers or abutments to be owned and used in common by such company and another owner or other owners, and locations for the transmission lines and telephone, signal and feed wires of such company in public ways or parts thereof, other than those public ways or parts thereof in which the tracks of such company are laid, and locations for additional poles to support, or alterations of locations for existing poles supporting, trolley or span wires; and all locations granted to a street railway or electric railroad company hereunder shall be subject only to revocation as provided in section sixty-six of Part III of chapter four hundred and sixty-three of the acts of the year nineteen hundred and six; but nothing contained in this section save as hereinbefore expressly set forth shall be held to apply to the poles, wires and other appliances and equipment which a street railway or electric railroad company, by a grant of location, or extension or alteration thereof, under any general or special law now or hereafter in force relating to street railways or electric railroads may be authorized to construct, maintain and operate in a public way; and no terms, restrictions and obligations, other than such as may be imposed upon a grant of location for a street railway or electric railroad, or an extension or alteration thereof, under any general or special law now or hereafter in force relating thereto, shall be imposed upon locations granted to a street railway or electric railroad company hereunder, save locations for its transmission lines or telephone, signal or feed wires in public ways or parts thereof other than those public ways and parts thereof in which the tracks of such company are laid.

SECTION 3. Chapter one hundred and twenty-two of the Revised Laws is hereby amended by striking out section seventeen and inserting in place thereof the following:— *Section 17.* Such person or corporation shall plainly mark each pole, pier, abutment, or other fixture supporting wires or cables containing wires over streets or buildings with the name or initials of the owner of such pole, pier, abutment, or other fixture. Wherever cross arms or other appliances for the support of wires or cables belonging to different owners are attached to the same pole, pier, abutment or other fixture, every such cross arm or other appliance shall plainly be tagged or marked with the name or initials of the owner thereof. Where-

ever wires or cables belonging to different owners are attached to the same cross arm or other appliances for the support of wires or cables, every wire or cable shall be tagged or marked with the name or initials of the owner at or near its point of attachment to such cross arm or other appliance. No such tag or mark shall be required for the wires, poles, piers, abutments and other fixtures of a street railway or electric railroad company, except for its feed wires supported by poles carrying wires or cables belonging to another owner, and for its poles supporting wires or cables belonging to another owner, and for poles belonging jointly to the street railway company and another owner.

SECTION 4. Chapter one hundred and twenty-two of the Revised Laws is hereby amended by striking out section twenty and inserting in place thereof the following:— *Section 20.* Poles and other structures which are used to support lines for the transmission of electricity shall be insulated in such manner as to protect employees and other persons from accidents. If such poles and other structures are of any material except wood, and support lines which are operated at a voltage in excess of two thousand volts, they shall be plainly and conspicuously marked "Dangerous. Keep Away." The officer and inspector of wires appointed under the authority of section eighteen of said chapter one hundred and twenty-two, or the commissioner of wires of the city of Boston, shall enforce the provisions of this section, and he shall be the sole judge of what constitutes a proper insulation and marking.

SECTION 5. Chapter one hundred and twenty-two of the Revised Laws is hereby amended by striking out section twenty-three and inserting in place thereof the following:— *Section 23.* A corporation or person maintaining or operating telephone, telegraph or other electric wires shall, at all places where such wires are affixed by any pole, structure or fixture to the property of another, mark such pole, structure or fixture in a clear, durable and legible manner with the name or initials of the corporation or person maintaining or operating such wires, and any corporation or person failing to comply with the provisions of this section shall be punished by a fine of not more than one hundred dollars.

SECTION 6. Chapter one hundred and twenty-two of the Revised Laws is hereby amended by striking out section twenty-eight and inserting in place thereof the following:— *Section 28.* Whenever, in order to move a building or for any other necessary purpose, a person desires that the wires of any such company be cut, disconnected or removed, the company shall forthwith cut, dis-

connect or remove the same, if the person desiring this to be done has first left a written statement, signed by him, of the time when, and the place, described by reference to the crossings of streets or highways, where he wishes to remove said wires, at the office of the company in the town in which such place is situated, twenty-four hours before the time so stated, or, if there is no such office, if he has deposited such statement in the post office, properly prepaid, and directed to the company at its office nearest to said place, three days before the time mentioned in said statement. If the company neglects or refuses to cut, disconnect or remove wires as hereinbefore provided, the inspector of wires, or the selectmen of a town where there is no inspector of wires, may cause the same to be cut, disconnected or removed, and the city or town may recover of the company in an action of contract the expense of so doing.

SECTION 7. No ordinance or regulation of a city or town, or regulation or restriction imposed in a grant of location, affecting the erection, maintenance or operation of a line for the transmission of electricity for light, heat or power extending or intended to extend from some point in one city or town through, or to some point in another city or town, shall take effect until the same shall have been approved by the board of gas and electric light commissioners in the case of electric light, heat or power companies, and by the board of railroad commissioners in the case of street railway and electric railroad companies.

SECTION 8. Any company subject to the provisions of chapter one hundred and twenty-two of the Revised Laws, except a telegraph or telephone company, desiring to construct a line for the transmission of electricity which will of necessity pass through one or more cities or towns to connect the proposed termini of such line, whose petition for the location necessary for such line has been refused, or has not been granted within three months after the filing thereof by the mayor and aldermen of a city or the selectmen of a town through which said company intends to construct such line for the purpose aforesaid, may apply, in the case of electric light, heat or power companies to the board of gas and electric light commissioners, and in the case of street railway and electric railroad companies to the board of railroad commissioners, for such location. The board to which such application is made shall give a public hearing thereon after notice to the mayor and aldermen of the city or to the selectmen of the town refusing or neglecting to grant such location, and to all persons owning real estate abut-

ting upon any way in said city or town in which such location is asked for, as such ownership is determined by the last assessment for taxation. Said board shall, if requested by the mayor and aldermen or the selectmen, hold said hearing in the city or town in which the location is asked for. If it shall appear at the hearing that the company has already been granted and has accepted a location for such line in two cities, or in two towns, or in a city and town, adjoining the city or town because of the refusal or neglect of whose mayor and aldermen or selectmen to grant a location therefor the application is made, and if in the judgment of said board the location is necessary for the public convenience, and will be in the public interest, said board may by order grant a location for such line in the city or town with respect to which the application is made, and shall have and exercise relative thereto the same powers and authority conferred by section two of this act upon the mayor and aldermen or selectmen, and in addition to the provisions of law governing such company may impose such other terms, limitations and restrictions as the public interest may in its judgment require. Said board shall cause an attested copy of its order, with the certificate of its clerk, endorsed thereon, that the order was adopted after due notice and a public hearing as hereinbefore prescribed, to be forwarded to the clerk of the city or of the town, as the case may be, and the clerk of the city or of the town shall record the same and shall furnish attested copies thereof upon the terms and in the manner specified in section two of this act.

SECTION 9. This act shall take effect upon its passage. [*Approved June 2, 1911.*]

CHAPTER 516.

An Act relative to the Municipal Lighting Plants of the Towns of Reading and Wakefield.

Be it enacted, etc., as follows:

SECTION 1. The towns of Reading and Wakefield may sell electricity to each other, and, if the town of Reading acquires a plant for the manufacture or distribution of gas, said towns may sell gas to each other.

SECTION 2. The town of Wakefield may, if authorized by vote of the town of Reading, construct and maintain in the town of Reading pipes for the distribution and sale of gas and lines for the distribution and sale of electricity to the inhabitants thereof and to said

town for municipal use; and the town of Reading may, if authorized by vote of the town of Wakefield, construct and maintain in the town of Wakefield lines for the distribution and sale of electricity to the inhabitants thereof and to said town for municipal use; but no expenditure for such purpose shall be made by either of said towns unless the same shall have been authorized by vote of two thirds of the voters taken by ballot with the use of the voting list at each of two town meetings called for the purpose and held at intervals of not less than two nor more than thirteen months. The said towns shall have with respect to the distribution and sale of gas or electricity beyond their respective boundaries the same rights and privileges and be subject to the same duties, limitations and obligations as they now or may hereafter have or be subject to with respect to the distribution and sale of gas or electricity within their own limits.

SECTION 3. The town of Wakefield may, with the consent in writing of the selectmen of Reading, dig up and open the ground in any of the streets, lanes and highways of Reading so far as may be necessary to construct and maintain pipes for the distribution and sale of gas under the authority of section two; and shall have the same duties and liabilities and be subject to the same regulations, restrictions and control with respect thereto as apply to gas companies.

SECTION 4. Either of said towns, which has been authorized so to do under the provisions of section two, may construct and maintain lines for the distribution and sale of electricity upon, along, under or across public ways in the other town: *provided*, that it shall first obtain from the selectmen of such other town locations for said lines in the same manner as is required by law of companies incorporated for the transmission of electricity for light, heat or power.

SECTION 5. If the town of Reading shall hereafter acquire a plant for the manufacture or distribution of gas, or if its selectmen shall hereafter consent to the digging up and opening its streets, lanes and highways for the purpose of laying gas pipes therein by a gas company or other person not now engaged actively in the business of manufacturing or selling gas therein, it shall under the provisions of sections ten, eleven and twelve of chapter thirty-four of the Revised Laws and of all acts in amendment thereof or in addition thereto, purchase the plant and property within its limits owned by the town of Wakefield and used for the distribution and sale of gas in like manner as if the same were the plant and property

of a private person, firm or corporation: *provided, however*, that the town of Wakefield shall have no right to refuse to sell its plant and property within the limits of the town of Reading, but shall sell and convey the same to said town of Reading within the time and in the manner prescribed by law for the sale to a municipality of gas plants privately owned, and thereupon the right of the town of Wakefield to maintain a gas plant or to sell gas within the limits of the town of Reading shall cease.

SECTION 6. Either of said towns may extend its own lines for the distribution and sale of electricity to its inhabitants and to itself for municipal use throughout its own territory notwithstanding that the other of said towns has constructed and is maintaining therein lines for said purposes under the authority of this act; but if one of said towns shall undertake to supply such of its inhabitants, public buildings and street lights as it had the right to do under the provisions of sections ten, eleven and twelve of chapter thirty-four of the Revised Laws and of all acts in amendment thereof or in addition thereto, it shall purchase the electric light plant and property within its limits of the latter town in like manner as if the same were the plant and property of a private person, firm or corporation: *provided*, that the latter town shall have no right to refuse to sell its plant and property within the limits of the former but shall forthwith sell and convey the same to the former town in the manner prescribed by law for the sale to a municipality of electric light plants privately owned, and thereupon the right of the latter town to maintain its lines and distribute and sell electricity within the limits of the former shall cease.

SECTION 7. The said towns may in the exercise of the authority conferred by this act make such contracts with each other, not inconsistent with this act or with other provisions of law, as they may deem necessary and proper.

SECTION 8. This act shall take effect upon its passage. [*Approved June 2, 1911.*]

CHAPTER 558.

An Act relative to Meters used by Gas Companies.

Be it enacted, etc., as follows:

When a gas meter in a building owned or used by a customer of a gas company is read by an employee or agent of such company, he shall, upon request, deliver to the person using the gas measured by the meter a written statement of the amount recorded by the meter at that time. [*Approved June 16, 1911.*]

CHAPTER 562.

An Act relative to the Licensing of Engineers and Firemen.

Be it enacted, etc., as follows:

SECTION 1. Section seventy-eight of chapter one hundred and two of the Revised Laws, as amended by section one of chapter three hundred and seventy-three of the acts of the year nineteen hundred and seven, is hereby further amended by striking out the word "eight," in the eighth line, and inserting in place thereof the word: — nine, — so as to read as follows: — *Section 78.* No person shall have charge of or operate a steam boiler or engine in this commonwealth, except boilers and engines upon locomotives, motor road vehicles, boilers and engines in private residences, boilers in apartment houses of less than five flats, boilers and engines under the jurisdiction of the United States, boilers and engines used for agricultural purposes exclusively, boilers and engines of less than nine horse power, and boilers used for heating purposes exclusively which are provided with a device approved by the chief of the district police limiting the pressure carried to fifteen pounds to the square inch, unless he holds a license as hereinafter provided. The owner or user of a steam boiler or engine, other than boilers or engines above excepted, shall not operate or cause to be operated a steam boiler or engine for a period of more than one week, unless the person in charge of and operating it is duly licensed.

SECTION 2. Section eighty of said chapter one hundred and two is hereby amended by striking out all of said section after the word "operated," in the third line, and inserting in place thereof the following: — The words "operate," "operated" or "operating," in the two preceding sections, shall designate the person who, under the supervision of the licensed person in charge, operates any appurtenances of a boiler or engine: *provided, however,* that to work with a licensed person there may be employed not more than one unlicensed person who, in the presence of and under the personal direction of the licensed person, may operate the appurtenances of a boiler or engine, — so as to read as follows: — *Section 80.* The words "have charge" or "in charge," in the two preceding sections, shall designate the person under whose supervision a boiler or engine is operated. The words "operate," "operated" or "operating," in the two preceding sections, shall designate the person who, under the supervision of the licensed person in charge, operates any appurtenances of a boiler or engine: *provided, however,* that to work with a licensed person there may be employed not more than one

unlicensed person who, in the presence of and under the personal direction of the licensed person, may operate the appurtenances of a boiler or engine.

SECTION 3. Section eighty-one of said chapter one hundred and two, as amended by section one of chapter three hundred and ten of the acts of the year nineteen hundred and five, is hereby further amended by striking out the said section, and inserting in place thereof the following:—*Section 81.* Whoever desires to act as engineer or fireman shall apply for a license therefor to the state inspector of boilers for the city or town in which he resides or is employed, upon blanks to be furnished by the boiler inspection department of the district police. The application shall be accompanied by a fee of one dollar, and shall show the total experience of the applicant. To be eligible for examination for a first class fireman's license, a person must have been employed as a steam engineer or fireman in charge of or operating boilers for not less than one year, or he must have held and used a second class fireman's license for not less than six months. To be eligible for examination for a third class engineer's license, a person must have been employed as a steam engineer or fireman in charge of or operating boilers for not less than one and one half years, or he must have held and used a first class fireman's license for not less than one year. To be eligible for examination for a second class engineer's license, a person must have been employed as a steam engineer in charge of a steam plant or plants having at least one engine of over fifty horse power for not less than two years, or he must have held and used a third class engineer's license for not less than one year, or have held and used a special license to operate a first class plant for not less than two years; except that any person who has served three years as apprentice to the machinist or boiler making trade in stationary, marine or locomotive engine or boiler works and who has been employed for one year in connection with the operation of a steam plant, or any person graduated as a mechanical engineer from a duly recognized school of technology, who has been employed for one year in connection with the operation of a steam plant, shall be eligible for examination for a second class engineer's license. To be eligible for examination for a first class engineer's license, a person must have been employed for not less than three years, as a steam engineer in charge of a steam plant or plants having at least one engine of over one hundred and fifty horse power, or he must have held and used a second class engineer's license in a second class or first class plant for not less than one and one half years. The appli-

cant shall make oath to the statements contained in his application, and the members of the boiler inspection department of the district police are hereby authorized to administer the oath. Wilful falsification in the matter of a statement contained in an application shall be deemed sufficient cause for the revocation of the license at any time. The applicant shall be given a practical examination, and, if found competent and trustworthy, he shall receive a license graded according to the merits of his examination. An applicant for a first class or second class engineer's license, or for a special license to operate a first class plant, or for a special license to have charge of a second class plant, shall be examined by a board of three examiners, one of whom may be the chief inspector, and, if the applicant is employed, one member of said board shall be the state inspector of boilers for the city or town in which the applicant is employed, and the decision of said board shall be final. The applicant shall have the privilege of having one person present during his examination, who shall take no part in the same, but who may take notes if he so desires. A period of ninety days shall elapse between examinations, except in the case of an appeal as hereinafter provided. A license shall continue in force until it is suspended or revoked for the incompetence or untrustworthiness of the licensee, except that a special license shall not continue in force after the holder thereof ceases to be employed in the plant specified in the license. A person whose license is suspended or revoked shall surrender his license to a member of the boiler inspection department. If a new license of a different grade is issued, the old license shall be destroyed by the examiner. If a license is lost, or is destroyed by fire or other means, a new license shall be issued in its place, without re-examination of the licensee, upon satisfactory proof of such loss or destruction to an examiner.

SECTION 4. Section eighty-two of said chapter one hundred and two, as amended by section two of chapter three hundred and ten of the acts of the year nineteen hundred and five, by chapter four hundred and fourteen of the acts of the year nineteen hundred and six, and by section two of chapter three hundred and seventy-three of the acts of the year nineteen hundred and seven, is hereby further amended by striking out all after the word "boilers", in the fifteenth line, and inserting in place thereof the words:— Portable class, to have charge of or operate portable boilers and portable engines, except hoisting engines or steam fire engines. Steam fire engineers' class, to have charge of or to operate steam fire engines and boilers. Firemen's licenses:— Extra first class, to have charge of

and operate any boiler or boilers. First class, to have charge of and operate any boiler or boilers where the safety valve or valves are set to blow at a pressure not exceeding twenty-five pounds to the square inch, or to operate high pressure boilers under the engineer or fireman in direct charge thereof. Second class, to operate any boiler or boilers under the engineer or fireman in direct charge thereof. A person holding an extra first class or first class fireman's license may operate a third class plant under the engineer in direct charge of the plant. Special licenses:— A person holding an engineer's or fireman's license, who desires to have charge of or to operate a particular steam plant, may, provided that he holds an engineer's or fireman's license and that he files with his application for such examination a written request signed by the owner or user of said plant, be examined as to his competence for such service and no other, and, if found competent and trustworthy, he shall be granted a license for such service and no other: *provided, however*, that no special license shall be granted to give any person charge of an engine of over one hundred and fifty horse power, — so as to read as follows: — *Section 82.* Licenses shall be granted according to the competence of the applicant and shall be distributed in the following classes: — Engineers' licenses:— First class, to have charge of and operate any steam plant. Second class, to have charge of and operate a boiler or boilers, and to have charge of and operate engines, no one of which shall exceed one hundred and fifty horse power, or to operate a first class plant under the engineer in direct charge of the plant. Third class, to have charge of and operate a boiler or boilers not exceeding in the aggregate one hundred and fifty horse power, and an engine not exceeding fifty horse power, or to operate a second class plant under the engineer in direct charge of the plant. Fourth class, to have charge of and operate hoisting and portable engines and boilers. Portable class, to have charge of or to operate portable boilers and portable engines, except hoisting engines or steam fire engines. Steam fire engineers' class, to have charge of or to operate steam fire engines and boilers. Firemen's licenses: — Extra first class, to have charge of and operate any boiler or boilers. First class, to have charge of and operate any boiler or boilers where the safety valve or valves are set to blow at a pressure not exceeding twenty-five pounds to the square inch, or to operate high pressure boilers under the engineer or fireman in direct charge thereof. Second class, to operate any boiler or boilers under the engineer or fireman in direct charge thereof. A person holding an extra first class or first class fireman's license may operate a third class plant under the engineer

in direct charge of the plant. Special licenses: — A person holding an engineer's or fireman's license, who desires to have charge of or to operate a particular steam plant, may, provided that he holds an engineer's or fireman's license, and that he files with his application for such examination a written request signed by the owner or user of said plant, be examined as to his competence for such service and no other, and, if found competent and trustworthy, he shall be granted a license for such service and no other: *provided, however*, that no special license shall be granted to give any person charge of an engine over one hundred and fifty horse power.

SECTION 5. Section eighty-three of said chapter one hundred and two is hereby amended by striking out the said section, and inserting in place thereof the following: — *Section 83.* The horse power of a boiler shall be ascertained upon a basis of three horse power for each square foot of grate surface or equivalent, when the safety valve is set to blow at a pressure exceeding twenty-five pounds per square inch, and on a basis of one and one half horse power for each square foot of grate surface or equivalent, when the safety valve is set to blow at twenty-five pounds pressure per square inch or less.

The horse power of a reciprocating steam engine shall be ascertained upon the basis of a mean effective pressure of forty pounds per square inch of piston for a simple engine, fifty pounds for a condensing engine, and seventy pounds for a compound engine, calculated upon the area of the high pressure piston.

A steam turbine engine shall be rated at less than nine horse power when the external diameter of the steam supply pipe does not exceed one and three fourths inches. A steam turbine engine shall be rated at fifty horse power when the external diameter of the steam supply pipe exceeds one and three fourths inches and does not exceed three and one half inches. A steam turbine engine shall be rated at one hundred and fifty horse power when the external diameter of the steam supply pipe exceeds three and one half inches and does not exceed five inches.

SECTION 6. Section eighty-four of said chapter one hundred and two, as amended by section three of chapter three hundred and seventy-three of the acts of the year nineteen hundred and seven, is hereby further amended by striking out the said section, and inserting in place thereof the following: — *Section 84.* A person who is aggrieved by the action of an examiner in refusing, suspending or revoking a license, may appeal therefrom to the chief inspector of the boiler inspection department, who shall appoint three mem-

bers of the boiler inspection department to act together as a board of appeal, one of whom may be said chief inspector. If an appeal is taken, it must be within one week after the decision of the examiner. The appellant shall have the privilege of having one person present during the hearing of his appeal, who shall take no part in the same but who may take notes if he so desires. The decision of the majority of the said examiners, acting as a board of appeal, shall be final.

SECTION 7. Section eighty-five of said chapter one hundred and two, as amended by section four of chapter three hundred and seventy-three of the acts of the year nineteen hundred and seven, is hereby further amended by striking out the word "eight", in the thirteenth line, and inserting in place thereof the word:— nine,— so as to read as follows:— *Section 85.* An engineer's or fireman's license, granted under the provisions of the seven preceding sections or the corresponding provisions of earlier laws, shall be placed so as to be easily read in a conspicuous place in the engine room or boiler room of the plant operated by the holder of such license. The person in charge of a stationary steam boiler upon which the safety valve is set to blow off at more than twenty-five pounds pressure to the square inch except boilers upon locomotives, motor road vehicles, boilers in private residences, boilers in apartment houses of less than five flats, boilers under the jurisdiction of the United States, boilers used for agricultural purposes exclusively, and boilers of less than nine horse power, shall keep a daily record of the boiler, its condition when under steam and all repairs made and work done on it, upon forms to be obtained upon application from the boiler inspection department. These records shall be kept on file and shall be accessible at all times to the members of the boiler inspection department.

SECTION 8. This act shall take effect on the first day of January in the year nineteen hundred and twelve, and a license in force on the first day of January in the year nineteen hundred and twelve shall continue in force until it is suspended or revoked for the incompetence or untrustworthiness of the licensee, except that a special license shall not continue in force after the holder thereof ceases to be employed on the plant specified in the license. A license in force on the first day of January in the year nineteen hundred and twelve may be exchanged for a license of the same class under this act at any time thereafter, on application to the boiler inspection department of the district police, upon forms to be furnished by said department. The applicant shall make oath to

the statements contained in the said application, and the members of the boiler inspection department of the district police are hereby authorized to administer the oath.

(The foregoing was laid before the Governor on the twelfth day of June, 1911, and after five days it had "the force of a law", as prescribed by the Constitution, as it was not returned by him with his objections thereto within that time.)

CHAPTER 603.

An Act relative to obtaining Information concerning the Proper Lighting of Factories and Workshops and Investigating Eye Injuries.

Be it enacted, etc., as follows:

SECTION 1. The state inspectors of health, or such other officers as the state board of health may from time to time appoint, shall, when obtaining information concerning the proper lighting of factories, workshops and other industrial establishments, make such investigation concerning the eye and vision in their relation to diseases of occupation, including injuries to the eyes of the employees, and to the pathological effects which are produced or promoted by the circumstances under which the various occupations are carried on, as, in the opinion of said board is practicable, and the board shall from time to time issue such printed matter containing suggestions to employers and employees for the protection of the eyes of the employees as it may deem advisable.

SECTION 2. If it appears to an inspector of health, or other officer appointed by said board, that in any factory, workshop or other industrial establishment, from the nature of the work or of the machinery used in connection therewith, or of other circumstances, there is danger of injury to the eyes of employees engaged in such work, and that the danger of injury may be decreased or prevented by any mechanical device or other practicable means, he shall, if said board so directs, order in writing that such device or other means shall be provided therein; and it shall be the duty of the proprietors and managers of the factory, workshop or other industrial establishment to comply with the order.

SECTION 3. Any person, firm or corporation violating any provision of this act shall be subject to a fine of not less than five nor more than two hundred dollars for every week during which such violation continues: *provided, however*, that a criminal prosecution for any violation hereof shall not be begun unless such person,

firm or corporation shall, for a period of four weeks after the receipt of an order in writing from a state inspector of health or other officer, as provided in the preceding section, neglect to comply therewith.

SECTION 4. There shall annually be appropriated from the treasury of the commonwealth a sum not exceeding one thousand dollars, which sum shall be added to the sum provided for by section seven of chapter five hundred and thirty-seven of the acts of the year nineteen hundred and seven. [*Approved June 30, 1911.*]

CHAPTER 615.

An Act making an Appropriation for the Abatement of Smoke in the City of Boston and Vicinity.

Be it enacted, etc., as follows:

SECTION 1. The sum of five thousand dollars is hereby appropriated, to be paid out of the treasury of the commonwealth, to meet expenses in connection with the abatement of smoke in the city of Boston and vicinity during the fiscal year ending the thirtieth day of November, nineteen hundred and eleven, as provided for by chapter six hundred and fifty-one of the acts of the year nineteen hundred and ten, being the estimate of the gas and electric light commissioners.

SECTION 2. This act shall take effect upon its passage. [*Approved June 30, 1911.*]

CHAPTER 622.

An Act to provide for completing an Investigation of the Water Power of the Commonwealth and for determining the Best Methods of utilising the Same.

Be it enacted, etc., as follows:

SECTION 1. The unexpended part of the appropriation made in the year nineteen hundred and nine for the purposes specified in chapter three hundred and fifty-nine of the acts of the year nineteen hundred and nine may be expended in completing the determination of the amount of water power available on the streams of the commonwealth and for investigating the best methods of utilizing the same.

SECTION 2. The provisions of said chapter three hundred and fifty-nine shall apply to the completion of said determination and investigation.

SECTION 3. A brief report of the work done under the provisions of this act shall be made to the governor by the director of the United States Geological Survey on the first day of January, nineteen hundred and twelve, and a final report shall be made by said director to the governor on or before the first day of January, nineteen hundred and thirteen, embodying the complete results of the investigation.

SECTION 4. This act shall take effect upon its passage. [*Approved June 30, 1911.*]

CHAPTER 635.

An Act relative to the Recovery of Damages for Conscious Suffering in Certain Cases of Death from Injury.

Be it enacted, etc., as follows:

SECTION 1. In any civil action brought under the provisions of section sixty-three of Part I of chapter four hundred and sixty-three of the acts of the year nineteen hundred and six, as amended by section one of chapter three hundred and ninety-two of the acts of the year nineteen hundred and seven, damages may be recovered under a separate count at common law for conscious suffering resulting from the same injury, but any sum so recovered shall be held and disposed of by the executors or administrators as assets of the estate of the deceased.

SECTION 2. This act shall take effect upon its passage. [*Approved July 7, 1911.*]

CHAPTER 652.

An Act making Appropriations for Salaries and Expenses of the Gas and Electric Light Commissioners.

Be it enacted, etc., as follows:

SECTION 1. The sums hereinafter mentioned are appropriated, to be paid out of the Gas and Electric Light Commissioners' Fund, for the salaries and expenses of the gas and electric light commissioners, for the fiscal year ending on the thirtieth day of November, nineteen hundred and eleven, to wit:—

For the salaries of the commissioners, fourteen thousand dollars.

For clerical assistance, a sum not exceeding five thousand dollars.

For statistics, books, stationery, and for other necessary expenses, a sum not exceeding thirty-three hundred dollars.

For rent of an office, a sum not exceeding forty-two hundred dollars.

For the inspection of electric meters, a sum not exceeding one thousand dollars.

For the salary of the present gas inspector, twenty-eight hundred dollars.

For the salary of the present first assistant inspector, eighteen hundred dollars.

For the salary of the present second assistant inspector, sixteen hundred dollars.

For compensation of deputies, travelling expenses, apparatus, office rent and other incidental expenses, a sum not exceeding nine thousand dollars.

For printing and binding the annual report, a sum not exceeding eighteen hundred dollars.

SECTION 2. This act shall take effect upon its passage. [*Approved July 10, 1911.*

CHAPTER 656.

An Act relative to licensing Operators of Hoisting Machinery when the Motive Power is Mechanical and Other than Steam.

Be it enacted, etc., as follows:

SECTION 1. No person shall operate derricks, cableways, machinery used for discharging cargoes, temporary elevator cars used on excavation work or used for hoisting building material, when the motive power to operate such machinery is mechanical and other than steam, unless he holds a license as hereinafter provided. The owner or user of hoisting machinery specified in this section shall not operate, or cause to be operated, such machinery for a period of more than one week, unless the person operating it is duly licensed.

SECTION 2. The owner of hoisting machinery specified in this act shall not operate or cause to be operated according to the provisions of this act such hoisting machinery for a period of more than one week, unless the person in charge of and operating such machinery is duly licensed.

SECTION 3. Whoever desires to act as operator of hoisting machinery, as specified in section one of this act, shall apply for a license therefor to the state inspector of boilers for the city or town in which he resides or is employed, upon blanks to be furnished by the boiler inspection department of the district police. The application shall be accompanied by a fee of one dollar, and shall show the total experience of the applicant in operating hoisting machinery. The applicant shall make oath to the statement contained in his

application, and the members of the boiler inspection department of the district police are hereby authorized to administer said oath. Wilful falsification in the matter of statements contained in an application shall be deemed sufficient cause for the revocation of said license at any time. The applicant shall be given a practical examination by a member of the boiler inspection department of the district police, and, if found competent and trustworthy, he shall receive a license to operate hoisting machinery, as specified in section one of this act. The applicant shall have the privilege of having one person present during his examination, who shall take no part in the same, but who may take notes if he so desires. A period of ninety days shall elapse between examinations, except in the case of an appeal as hereinafter provided. A license shall continue in force until it is suspended or revoked for the incompetence or untrustworthiness of the licensee. If a license is lost, or is destroyed by fire or other means, a new license shall be issued in its place, without re-examination of the licensee, upon satisfactory proof to an examiner of such loss or destruction.

SECTION 4. A person who is aggrieved by the action of an examiner in refusing, suspending or revoking a license, may appeal therefrom to the chief inspector of the boiler inspection department of the district police, who shall appoint three members of the boiler inspection department to act together as a board of appeal, one of whom may be said chief inspector. If appeal is taken, it must be within one week after the decision of the examiner. The appellant shall have the privilege of having one person present during the hearing of his appeal, who shall take no part in the same, but who may take notes if he so desires. The decision of the majority of such examiners, acting as a board of appeal, shall be final.

SECTION 5. An operator's license, granted under the provisions of this act, shall be carried on the person of the holder thereof when operating hoisting machinery as specified in section one of this act.

SECTION 6. The boiler inspection department of the district police shall act as examiners and enforce the provisions of this act; and whoever violates any of the provisions of this act shall be punished by a fine of not less than ten nor more than three hundred dollars, or by imprisonment for not more than three months. A trial justice shall have jurisdiction of complaints for violations of the provisions of this act, and in such cases may impose a fine of not more than fifty dollars. All members of the boiler inspection department of the district police shall have authority, in the pursuance of their duty, to enter any premises having thereon hoisting machin-

ery, as specified in section one of this act; and any person who hinders or prevents, or attempts to prevent, any state boiler inspector from so entering, shall be liable to the penalty specified in this section.

SECTION 7. This act shall take effect on the first day of September in the year nineteen hundred and eleven. [*Approved July 11, 1911.*]

CHAPTER 751.

An Act relative to Payments to Employees for Personal Injuries received in the Course of their Employment and to the Prevention of Such Injuries.

Be it enacted, etc., as follows:

PART I.

MODIFICATION OF REMEDIES.

SECTION 1. In an action to recover damages for personal injury sustained by an employee in the course of his employment, or for death resulting from personal injury so sustained, it shall not be a defense:

1. That the employee was negligent;
2. That the injury was caused by the negligence of a fellow employee;
3. That the employee had assumed the risk of the injury.

SECTION 2. The provisions of section one shall not apply to actions to recover damages for personal injuries sustained by domestic servants and farm laborers.

SECTION 3. The provisions of section one shall not apply to actions to recover damages for personal injuries sustained by employees of a subscriber.

SECTION 4. The provisions of section one hundred and twenty-seven to one hundred and thirty-five, inclusive, and of one hundred and forty-one to one hundred and forty-three, inclusive, of chapter five hundred and fourteen of the acts of the year nineteen hundred and nine, and of any acts in amendment thereof, shall not apply to employees of a subscriber while this act is in effect.

SECTION 5. An employee of a subscriber shall be held to have waived his right of action at common law to recover damages for personal injuries if he shall not have given his employer at the time of his contract of hire, notice in writing that he claimed such right, or if the contract of hire was made before the employer became a subscriber, if the employee shall not have given the said notice within thirty days of notice of such subscription. An employee

who has given notice to his employer that he claimed his right of action at common law may waive such claim by a notice in writing which shall take effect five days after it is delivered to the employer or his agent.

PART II.

PAYMENTS.

SECTION 1. If an employee who has not given notice of his claim of common law rights of action, as provided in Part I, section five, or who has given such notice and has waived the same, receives a personal injury arising out of and in the course of his employment, he shall be paid compensation by the association, as hereinafter provided, if his employer is a subscriber at the time of the injury.

SECTION 2. If the employee is injured by reason of his serious and wilful misconduct, he shall not receive compensation.

SECTION 3. If the employee is injured by reason of the serious and wilful misconduct of a subscriber or of any person regularly entrusted with and exercising the powers of superintendence, the amounts of compensation hereinafter provided shall be doubled. In such case the subscriber shall repay to the association the extra compensation paid to the employee.

SECTION 4. No compensation shall be paid under this act for any injury which does not incapacitate the employee for a period of at least two weeks from earning full wages, but if incapacity extends beyond the period of two weeks, compensation shall begin on the fifteenth day after the injury.

SECTION 5. During the first two weeks after the injury, the association shall furnish reasonable medical and hospital services, and medicines when they are needed.

SECTION 6. If death results from the injury, the association shall pay the dependents of the employee, wholly dependent upon his earnings for support at the time of the injury, a weekly payment equal to one half his average weekly wages, but not more than ten dollars or less than four dollars a week, for a period of three hundred weeks from the date of the injury. If the employee leaves dependents only partly dependent upon his earnings for support at the time of his injury, the association shall pay such dependents a weekly compensation equal to the same proportion of the weekly payments for the benefit of persons wholly dependent as the amount contributed by the employee to such partial dependents bears to the annual earnings of the deceased at the time of his injury.

When weekly payments have been made to an injured employee before his death, the compensation to dependents shall begin from the date of the last of such payments, but shall not continue more than three hundred weeks from the date of the injury.

SECTION 7. The following persons shall be conclusively presumed to be wholly dependent for support upon a deceased employee:—

(a) A wife upon a husband with whom she lives at the time of his death.

(b) A husband upon a wife with whom he lives at the time of her death.

(c) A child or children under the age of eighteen years (or over said age, but physically or mentally incapacitated from earning) upon the parent with whom he is or they are living at the time of the death of such parent, there being no surviving dependent parent. In case there is more than one child thus dependent, the death benefit shall be divided equally among them.

In all other cases questions of dependency, in whole or in part, shall be determined in accordance with the fact, as the fact may be at the time of the injury; and in such other cases, if there is more than one person wholly dependent, the death benefit shall be divided equally among them, and persons partly dependent, if any, shall receive no part thereof; if there is no one wholly dependent and more than one person partly dependent, the death benefit shall be divided among them according to the relative extent of their dependency.

SECTION 8. If the employee leaves no dependents, the association shall pay the reasonable expense of his last sickness and burial, which shall not exceed two hundred dollars.

SECTION 9. While the incapacity for work resulting from the injury is total, the association shall pay the injured employee a weekly compensation equal to one half his average weekly wages, but not more than ten dollars nor less than four dollars a week; and in no case shall the period covered by such compensation be greater than five hundred weeks, nor the amount more than three thousand dollars.

SECTION 10. While the incapacity for work resulting from the injury is partial, the association shall pay the injured employee a weekly compensation equal to one half the difference between his average weekly wages before the injury and the average weekly wages which he is able to earn thereafter, but not more than ten dollars a week; and in no case shall the period covered by such compensation be greater than three hundred weeks from the date of the injury.

SECTION 11. In case of the following specified injuries the amounts hereinafter named shall be paid in addition to all other compensation:

(a) For the loss by severance of both hands at or above the wrist, or both feet, at or above the ankle, or the loss of one hand and one foot, or the entire and irrecoverable loss of the sight of both eyes, one half of the average weekly wages of the injured person, but not more than ten dollars nor less than four dollars a week, for a period of one hundred weeks.

(b) For the loss by severance of either hand at or above the wrist, or either foot at or above the ankle, or the entire and irrecoverable loss of the sight of either eye, one half the average weekly wages of the injured person, but not more than ten dollars nor less than four dollars a week, for a period of fifty weeks.

(c) For the loss by severance at or above the second joint of two or more fingers, including thumbs, or toes, one half the average weekly wages of the injured person, but not more than ten dollars nor less than four dollars a week, for a period of twenty-five weeks.

(d) For the loss by severance of at least one phalange of a finger, thumb, or toe, one half the average weekly wages of the injured person, but not more than ten dollars nor less than four dollars a week, for a period of twelve weeks.

SECTION 12. No savings or insurance of the injured employee, independent of this act, shall be taken into consideration in determining the compensation to be paid hereunder, nor shall benefits derived from any other source than the association be considered in fixing the compensation under this act.

SECTION 13. The compensation payable under this act in case of the death of the injured employee shall be paid to his legal representative; or, if he has no legal representative, to his dependents; or, if he leaves no dependents, to the persons to whom payment of the expenses for the last sickness and burial are due. If the payment is made to the legal representative of the deceased employee, it shall be paid by him to the dependents or other persons entitled thereto under this act.

SECTION 14. If an injured employee is mentally incompetent or is a minor at the time when any right or privilege accrues to him under this act, his guardian or next friend may in his behalf claim and exercise such right or privilege.

SECTION 15. No proceedings for compensation for an injury under this act shall be maintained unless a notice of the injury shall have been given to the association or subscriber as soon as

practicable after the happening thereof, and unless the claim for compensation with respect to such injury shall have been made within six months after the occurrence of the same; or, in case of the death of the employee, or in the event of his physical or mental incapacity, within six months after death or the removal of such physical or mental incapacity.

SECTION 16. The said notice shall be in writing, and shall state in ordinary language the time, place and cause of the injury; and shall be signed by the person injured, or by a person in his behalf, or, in the event of his death, by his legal representative or by a person in his behalf.

SECTION 17. The notice shall be served upon the association, or an officer or agent thereof, or upon the subscriber, or upon one subscriber, if there are more subscribers than one, or upon any officer or agent of a corporation if the subscriber is a corporation, by delivering the same to the person on whom it is to be served, or leaving it at his residence or place of business, or by sending it by registered mail addressed to the person or corporation on whom it is to be served, at his last known residence or place of business.

SECTION 18. A notice given under the provisions of this act shall not be held invalid or insufficient by reason of any inaccuracy in stating the time, place or cause of the injury, unless it is shown that it was the intention to mislead and the association was in fact misled thereby. Want of notice shall not be a bar to proceedings under this act, if it be shown that the association, subscriber, or agent had knowledge of the injury.

SECTION 19. After an employee has given notice of an injury, as provided by this act, and from time to time thereafter during the continuance of his disability he shall, if so requested by the association, submit himself to an examination by a physician or surgeon authorized to practise medicine under the laws of the commonwealth, furnished and paid for by the association. The employee shall have the right to have a physician provided and paid for by himself present at the examination. If he refuses to submit himself for the examination, or in any way obstructs the same, his right to compensation shall be suspended, and his compensation during the period of suspension may be forfeited.

SECTION 20. No agreement by an employee to waive his rights to compensation under this act shall be valid.

SECTION 21. No payment under this act shall be assignable or subject to attachment, or be liable in any way for any debts.

SECTION 22. Whenever any weekly payment has been continued

for not less than six months, the liability therefor may in unusual cases be redeemed by the payment of a lump sum by agreement of the parties, subject to the approval of the industrial accident board.

PART III.

PROCEDURE.

SECTION 1. There shall be an industrial accident board consisting of three members, to be appointed by the governor, by and with the advice and consent of the council, one of whom shall be designated by the governor as chairman. The term of office of members of this board shall be six years, except that when first constituted one member shall be appointed for two years, one for four years, and one for six years. Thereafter one member shall be appointed every second year for the full term of six years.

SECTION 2. The salaries and expenses of the board shall be paid by the commonwealth. The salary of the chairman shall be sixty-five hundred dollars a year, and the salary of the other members shall be six thousand dollars a year each. The board may appoint a secretary at a salary of not more than three thousand dollars a year, and may remove him. It shall also be allowed an annual sum, not exceeding ten thousand dollars, for clerical service, and travelling and other necessary expenses. The board shall be provided with an office in the state house or in some other suitable building in the city of Boston, in which its records shall be kept.

SECTION 3. The board may make rules not inconsistent with this act for carrying out the provisions of the act. Process and procedure under this act shall be as summary as reasonably may be. The board or any member thereof shall have the power to subpoena witnesses and to examine such parts of the books and records of the parties to a proceeding as relate to questions in dispute.

SECTION 4. If the association and the injured employee reach an agreement in regard to compensation under this act, a memorandum of the agreement shall be filed with the industrial accident board and, if approved by it, thereupon the memorandum shall for all purposes be enforceable as a decree of the superior court. Such agreements shall be approved by said board only when the terms conform to the provisions of this act.

SECTION 5. If the association and the injured employee fail to reach an agreement in regard to compensation under this act, either party may notify the industrial accident board who shall thereupon call for the formation of a committee of arbitration.

The committee of arbitration shall consist of three members, one of whom shall be a member of the industrial accident board, and shall act as chairman. The other two members shall be named, respectively, by the two parties.

SECTION 6. It shall be the duty of the industrial accident board upon notification that the parties have failed to reach an agreement, to request both parties to appoint their respective representatives on the committee of arbitration. The board shall designate one of its members to act as chairman, and, if either party does not appoint its member on this committee within seven days after notification, as above provided, the board or any member thereof shall fill the vacancy and notify the parties to that effect.

SECTION 7. The committee of arbitration shall make such inquiries and investigations as it shall deem necessary. The hearings of the committee shall be held at the place where the injury occurred, and the decision of the committee shall be filed with the industrial accident board. Unless a claim for a review is filed by either party within seven days, the decision shall be enforceable as if it were a decree of the superior court.

SECTION 8. The industrial accident board or any member thereof may appoint a duly qualified impartial physician to examine the injured employee and to report. The fee for this service shall be five dollars and travelling expenses, but the board may allow additional reasonable amounts in extraordinary cases.

SECTION 9. The arbitrators named by or for the parties to the dispute shall each receive five dollars as a fee for his services, but the industrial accident board or any member thereof may allow additional reasonable amounts in extraordinary cases. The fees shall be paid by the association, which shall deduct an amount equal to one third of the sum from any compensation found due the employee.

SECTION 10. If a claim for a review is filed, as provided in Part III, section seven, the board shall hear the parties and file its decision with the records of the proceedings.

SECTION 11. There shall be a right of appeal to the supreme judicial court on questions of law, and the industrial accident board may report questions of law to the supreme judicial court for its determination.

SECTION 12. Any weekly payment under this act may be reviewed by the industrial accident board at the request of the association or of the employee; and on such review it may be ended.

diminished or increased, subject to the maximum and minimum amounts above provided if the board finds that the condition of the employee warrants such action.

SECTION 13. Fees of attorneys and physicians for services under this act shall be subject to the approval of the industrial accident board.

SECTION 14. If the committee of arbitration, industrial accident board, or any court before whom any proceedings are brought under this act determines that such proceedings have been brought, prosecuted, or defended without reasonable ground, it shall assess the whole cost of the proceedings upon the party who has so brought, prosecuted or defended them.

SECTION 15. Where the injury for which compensation is payable under this act was caused under circumstances creating a legal liability in some person other than the subscriber to pay damages in respect thereof, the employee may at his option proceed either at law against that person to recover damages, or against the association for compensation under this act, but not against both; and if compensation be paid under this act, the association may enforce in the name of the employee, or in its own name and for its own benefit, the liability of such other person.

SECTION 16. All questions arising under this act, if not settled by agreement by the parties interested therein, shall, except as otherwise herein provided, be determined by the industrial accident board. The decisions of the industrial accident board shall for all purposes be enforceable as if they were decrees of the superior court.

SECTION 17. If a subscriber enters into a contract, written or oral, with an independent contractor to do such subscriber's work, or if such a contractor enters into a contract with a sub-contractor to do all or any part of the work comprised in such contract with the subscriber, and the association would, if such work were executed by employees immediately employed by the subscriber, be liable to pay compensation under this act to those employees, the association shall pay to such employees any compensation which would be payable to them under this act if the independent or sub-contractors were subscribers. The association, however, shall be entitled to recover indemnity from any other person who would have been liable to such employees independently of this section, and if the association has paid compensation under the terms of this section, it may enforce in the name of the employee, or in its own name and for the benefit of the association, the liability of such other person. This section shall

not apply to any contract of an independent or sub-contractor which is merely ancillary and incidental to, and is no part of or process in, the trade or business carried on by the subscriber, nor to any case where the injury occurred elsewhere than on, in, or about the premises on which the contractor has undertaken to execute the work for the subscriber or which are under the control or management of the subscriber.

SECTION 18. Every employer shall hereafter keep a record of all injuries, fatal or otherwise, received by his employees in the course of their employment. Within forty-eight hours, not counting Sundays and legal holidays, after the occurrence of an accident resulting in personal injury a report thereof shall be made in writing to the industrial accident board on blanks to be procured from the board for the purpose.

Upon the termination of the disability of the injured employee or, if such disability extends beyond a period of sixty days, at the expiration of such period the employer shall make a supplemental report on blanks to be procured from the board for that purpose.

The said reports shall contain the name and nature of the business of the employer, the location of the establishment, the name, age, sex and occupation of the injured employee, and shall state the date and hour of the accident, the nature and cause of the injury, and such other information as may be required by the board.

Any employer who refuses or neglects to make the report required by this section shall be punished by a fine of not more than fifty dollars for each offence.

PART IV.

THE MASSACHUSETTS EMPLOYEES INSURANCE ASSOCIATION.

SECTION 1. The Massachusetts Employees Insurance Association is hereby created a body corporate with the powers provided in this act and with all the general corporate powers incident thereto.

SECTION 2. The governor shall appoint a board of directors of the association, consisting of fifteen members, who shall serve for a term of one year, or until their successors are elected by ballot by the subscribers at such time and for such term as the by-laws shall provide.

SECTION 3. Until the first meeting of the subscribers the board of directors shall have and exercise all the powers of the subscribers, and may adopt by-laws not inconsistent with the provisions of this act, which shall be in effect until amended or repealed by the subscribers.

SECTION 4. The board of directors shall annually choose by ballot a president, who shall be a member of the board, a secretary, a treasurer, and such other officers as the by-laws shall provide.

SECTION 5. Seven or more of the directors shall constitute a quorum for the transaction of business.

Vacancies in any office may be filled in such manner as the by-laws shall provide.

SECTION 6. Any employer in the commonwealth may become a subscriber.

SECTION 7. The board of directors shall, within thirty days of the subscription of twenty-five employers, call the first meeting of the subscribers by a notice in writing mailed to each subscriber at his place of business not less than ten days before the date fixed for the meeting.

SECTION 8. In any meeting of the subscribers each subscriber shall be entitled to one vote, and if a subscriber has five hundred employees to whom the association is bound to pay compensation he shall be entitled to two votes, and he shall be entitled to one additional vote for each additional five hundred employees to whom the association is bound to pay compensation, but no subscriber shall cast, by his own right or by the right of proxy, more than twenty votes.

SECTION 9. No policy shall be issued by the association until not less than one hundred employers have subscribed, who have not less than ten thousand employees to whom the association may be bound to pay compensation.

SECTION 10. No policy shall be issued until a list of the subscribers, with the number of employees of each, together with such other information as the insurance commissioner may require, shall have been filed at the insurance department, nor until the president and secretary of the association shall have certified under oath that every subscription in the list so filed is genuine and made with an agreement by every subscriber that he will take the policies subscribed for by him within thirty days of the granting of a license to the association by the insurance commissioner to issue policies.

SECTION 11. If the number of subscribers falls below one hundred, or the number of employees to whom the association may be bound to pay compensation falls below ten thousand, no further policies shall be issued until other employers have subscribed who, together with existing subscribers, amount to not less than one hundred who have not less than ten thousand employees, said sub-

scriptions to be subject to the provisions contained in the preceding section.

SECTION 12. Upon the filing of the certificate provided for in the two preceding sections the insurance commissioner shall make such investigation as he may deem proper and, if his findings warrant it, grant a license to the association to issue policies.

SECTION 13. The board of directors shall distribute the subscribers into groups in accordance with the nature of the business and the degree of the risk of injury.

Subscribers within each group shall annually pay in cash, or notes absolutely payable, such premiums as may be required to pay the compensation herein provided for the injuries which may occur in that year.

SECTION 14. The association may in its by-laws and policies fix the contingent mutual liability of the subscribers for the payment of losses and expenses not provided for by its cash funds; but such contingent liability of a subscriber shall not be less than an amount equal to and in addition to the cash premium.

SECTION 15. If the association is not possessed of cash funds above its unearned premiums sufficient for the payment of incurred losses and expenses, it shall make an assessment for the amount needed to pay such losses and expenses upon the subscribers liable to assessment therefor in proportion to their several liability.

Every subscriber shall pay his proportional part of any assessments which may be laid by the association, in accordance with law and his contract, on account of injuries sustained and expenses incurred while he is a subscriber.

SECTION 16. The board of directors may, from time to time, by vote fix and determine the amount to be paid as a dividend upon policies expiring during each year after retaining sufficient sums to pay all the compensation which may be payable on account of injuries sustained and expenses incurred.

All premiums, assessments, and dividends shall be fixed by and for groups as heretofore provided in accordance with the experience of each group, but all the funds of the association and the contingent liability of all the subscribers shall be available for the payment of any claim against the association.

SECTION 17. Any proposed premium, assessment, dividend or distribution of subscribers shall be filed with the insurance department and shall not take effect until approved by the insurance commissioner after such investigation as he may deem necessary.

SECTION 18. The board of directors shall make and enforce

reasonable rules and regulations for the prevention of injuries on the premises of subscribers, and for this purpose the inspectors of the association shall have free access to all such premises during regular working hours.

Any subscriber or employee aggrieved by any such rule or regulation may petition the industrial accident board for a review, and it may affirm, amend, or annul the rule or regulation.

SECTION 19. If any officer of the association shall falsely make oath to any certificate required to be filed with the insurance commissioner, he shall be guilty of perjury.

SECTION 20. Every subscriber shall, as soon as he secures a policy, give notice, in writing or print, to all persons under contract of hire with him that he has provided for payment to injured employees by the association.

SECTION 21. Every subscriber shall give notice in writing or print to every person with whom he is about to enter into a contract of hire that he has provided for payment to injured employees by the association.

SECTION 22. If a subscriber, who has complied with all the rules, regulations and demands of the association, is required by any judgment of a court of law to pay to an employee any damages on account of personal injury sustained by such employee during the period of subscription, the association shall pay to the subscriber the full amount of such judgment and the cost assessed therewith, if the subscriber shall have given the association notice in writing of the bringing of the action upon which the judgment was recovered and an opportunity to appear and defend the same.

SECTION 23. The provisions of chapter five hundred and seventy-six of the acts of the year nineteen hundred and seven and of acts in amendment thereof shall apply to the association, so far as such provisions are pertinent and not in conflict with the provisions of this act, except that the corporate powers shall not expire because of failure to issue policies or make insurance.

SECTION 24. The board of directors appointed by the governor under the provisions of Part IV, section two, may incur such expenses in the performance of its duties as shall be approved by the governor and council. Such expenses shall be paid from the treasury of the commonwealth and shall not exceed in amount the sum of fifteen thousand dollars.

PART V.

MISCELLANEOUS PROVISIONS.

SECTION 1. If an employee of a subscriber files any claim with or accepts any payment from the association on account of personal injury, or makes any agreement, or submits any question to arbitration, under this act, such action shall constitute a release to the subscriber of all claims or demands at law, if any, arising from the injury.

SECTION 2. The following words and phrases, as used in this act, shall, unless a different meaning is plainly required by the context, have the following meaning:—

“Employer” shall include the legal representative of a deceased employer.

“Employee” shall include every person in the service of another under any contract of hire, express or implied, oral or written, except one whose employment is but casual, or is not in the usual course of the trade, business, profession or occupation of his employer. Any reference to an employee who has been injured shall, when the employee is dead, also include his legal representatives, dependents and other persons to whom compensation may be payable.

“Dependents” shall mean members of the employee’s family or next of kin who were wholly or partly dependent upon the earnings of the employee for support at the time of the injury.

“Average weekly wages” shall mean the earnings of the injured employee during the period of twelve calendar months immediately preceding the date of injury, divided by fifty-two; but if the injured employee lost more than two weeks’ time during such period then the earnings for the remainder of such twelve calendar months shall be divided by the number of weeks remaining after the time so lost has been deducted. Where, by reason of the shortness of the time during which the employee has been in the employment of his employer, or the nature or terms of the employment, it is impracticable to compute the average weekly wages, as above defined, regard may be had to the average weekly amount which, during the twelve months previous to the injury, was being earned by a person in the same grade employed at the same work by the same employer; or, if there is no person so employed, by a person in the same grade employed in the same class of employment and in the same district.

“Association” shall mean the Massachusetts Employees Insurance Association.

“Subscriber” shall mean an employer who has become a member of the association by paying a year’s premium in advance and receiving the receipt of the association therefor, provided that the association holds a license issued by the insurance commissioner as provided in Part IV, section twelve.

SECTION 3. Any liability insurance company authorized to do business within this commonwealth shall have the same right as the association to insure the liability to pay the compensation provided for by this act, and a policy holder of such liability company shall be regarded as a subscriber so far as applicable within the meaning of this act, and when any such company insures such payment of compensation it shall be subject to all the regulations and obligations imposed upon the association.

SECTION 4. Sections one hundred and thirty-six to one hundred and forty, inclusive, of chapter five hundred and fourteen of the acts of the year nineteen hundred and nine are hereby repealed.

SECTION 5. The provisions of this act shall not apply to injuries sustained prior to the taking effect thereof.

SECTION 6. Part IV of this act shall take effect on the first day of January, nineteen hundred and twelve; the remainder thereof shall take effect on the first day of July, nineteen hundred and twelve. [*Approved July 28, 1911.*]

RESOLVES.

CHAPTER 110.

Resolve to extend the Powers of the Commission appointed to consider the Liability of Employers for Injuries received by Employees in the Course of their Employment.

Resolved, That the commission which was appointed under chapter one hundred and twenty of the resolves of the year nineteen hundred and ten to determine upon a plan of compensating employees for injuries sustained in the course of their employment is hereby continued until the first day of July, nineteen hundred and twelve. The commission shall continue its studies and investigation, and shall collect and compile statistical data of accidents to employees, and other pertinent information, and shall report to the general court on or before May first, nineteen hundred and twelve, with drafts of such bills as it may recommend for legislation. Every employer shall hereafter, until July first, nineteen hundred and twelve, keep a record of all injuries, fatal or otherwise, received by his employees in the course of their employment; and within forty-eight hours, not counting Sundays and legal holidays, after the oc-

currence of an accident resulting in personal injury to an employee a report thereof shall be made in writing by the employer to the commission on blanks furnished for the purpose. Upon the termination of the disability of the injured employee or, if such disability extends beyond a period of sixty days, at the expiration of that period, the employer shall make a supplemental report on blanks furnished by the commission for the purpose. The said reports shall state the name and nature of the business of the employer, the location of his establishment, the name, age, sex and occupation of the injured employee, the date and hour of the accident, the nature and cause of the injury, and such other information as may be required by the commission. Any employer who refuses or neglects to make a report required by this resolve shall be punished by a fine of not more than fifty dollars for each offence. The total additional expense to be incurred under this resolve shall not exceed the sum of thirteen thousand dollars. [*Approved June 30, 1911.*]

CHAPTER 142.

Resolve relative to Certain Duties of the Director of the Bureau of Statistics.

Resolved, That the director of the bureau of statistics be required to make a special investigation and to report the results thereof, with such proposed legislation thereon as he deems necessary, to the next general court, relative to the indebtedness of the cities and towns of the commonwealth, including loans made in anticipation of taxes, the amount and character of indebtedness incurred within and without the debt limit, so-called, respectively, and the amount of debt outstanding against which no sinking funds are being accumulated or for the extinguishment of which no annual payments of principal have been provided in accordance with law. For the purpose of carrying out the provisions of this resolve said director may employ such additional assistants, who shall not be subject to chapter nineteen of the Revised Laws and the rules thereunder, and may incur such incidental expenses, as may be approved by the governor and council. [*Approved July 19, 1911.*]

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